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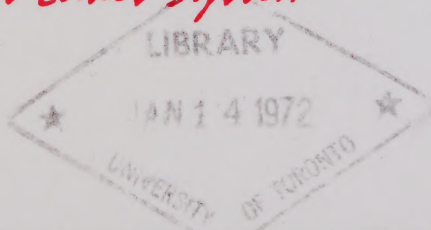


PART V



report of the
royal commission
on PILOTAGE

*Study of Canadian pilotage
Great Lakes System*




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report of the royal commission on PILOTAGE

*royal commission
on PILOTAGE*

PART I

*Study of Canadian postage
Great Lakes System*



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Ottawa, 1971



ROYAL COMMISSION ON PILOTAGE

To His Excellency

THE GOVERNOR GENERAL OF CANADA

May it Please Your Excellency

We, the Commissioners appointed pursuant to Order in Council dated 1st November 1962, P.C. 1962-1575, to inquire into and report upon the problems of marine pilotage in Canada and to make recommendations concerning the matters more specifically set forth in the said Order in Council: Beg to submit the following Report.

/s/ Bernier

CHAIRMAN

Robert K. Smith

J. J. Zarnica

J. J. Zarnica

SECRETARY

August 5, 1971

ROYAL COMMISSION ON PILOTAGE

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*Capt. J. A. Scott served as Nautical Adviser to the Commission from March 1, 1963 until his accidental death November 29, 1963.

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INTRODUCTION

Part V concludes the Report of this Royal Commission. The framework of the full Report is outlined in the General Introduction, Part I, pp. xxv-vi. Part I is a study of the present state of pilotage legislation in Canada and contains the Commission's Recommendations of a general character. Part V, like Parts II, III and IV, is complementary to Part I and should be read in conjunction with it but, at the same time, it is also a separate report. Part I is a study of the general pilotage provisions contained in Part VI C.S.A.; Part V studies in their circumstantial context the *ad hoc* provisions for pilotage in the Great Lakes system which were introduced in 1960 as Part VIA C.S.A.

The Great Lakes system consists of the Great Lakes and their connecting channels plus the international reach of the St. Lawrence River west of St. Regis. Part V appraises the requirements for pilotage and the adequacy of the existing legislation and organization for the provision of pilotage services throughout this area.

In Parts II, III and IV, each Pilotage District or separate region was given a separate section because they are self-contained administrative and operational units. This plan could not be followed in Part V since this was not the situation when pilotage was first organized in the Great Lakes system. Instead, this Part is divided by subjects and all the Districts and sectors and the various groups of pilots are studied and analysed under each heading. The Recommendations for the Great Lakes system form a separate chapter at the end (Chapter D).

The pilotage service in the Great Lakes system is a binational organization with U.S. and Canadian participation at all levels. The Commission has investigated in detail Canadian organization and operations but has limited its study of U.S. participation to the realm of public knowledge, i.e., legislation and published documents, and to other information volunteered by the U.S. pilots who testified at the Commission's hearings. For instance, the operations of the U.S. Pilots' Associations were not examined and the study of shipping casualties was confined to those reported to the Canadian authorities, but the differences between U.S. and Canadian concepts of pilotage and pilotage organization were stressed since these are available from official documents and form part of the basic situation that must be taken into account. While judicial notice has been taken of official reports and documents because they are in factual evidence, the Commission is aware that, at times, the information to which it had access represents only one side of the argument, but this is so only in the case of local controversies.

Observing the binational character of pilotage arrangements in the Great Lakes system, the Commission, before commencing its hearings, arranged through the Department of External Affairs to meet with the United States authorities concerned. On January 8–9, 1964, it met successively with Mr. Clarence D. Martin, the Under Secretary of Commerce (Transport) and other officials of his Department; with Capt. A. T. Meschter, Administrator, Great Lakes Pilotage, and members of his staff; and with Capt. W. C. Foster of the United States Coast Guard and various members of his staff. The aim of this official visit was to inform United States Government officials that the Commission was about to begin its investigation, to offer them the opportunity to participate in the investigation and to ask for their cooperation in order to render its study as fruitful as possible. The Commission was informed that no U.S. observer would be sent unless this became necessary, and it was agreed that the Commission's Secretary would keep the U.S. Administrator posted on the progress of the public hearings. This was done by supplying him with a copy of the transcripts of evidence as they became available. At these meetings, the Commission had informal discussions with the U.S. officials concerned and gathered valuable information which was of considerable assistance in orienting the subsequent hearings. Furthermore, the U.S. Administrator, Capt. Meschter, and his successor, Capt. G. R. Skuggen, have been most co-operative whenever the Commission sought information from them.

When this Commission was convened, the pilotage organization in the Great Lakes system was new and was regarded as most satisfactory but during the two and a half years the public hearings lasted ever increasing problems demonstrated its inherent deficiencies. Basic changes have been made since, many problems have been solved in the light of experience and the whole process of reorganization still continues. It was not considered necessary to re-open the hearings and call for new briefs since the weaknesses of the original system were clearly apparent when tested against the basic principles which should govern pilotage organization. The difficulties that arose were due to faulty legislation and procedures.

The reader's attention is drawn to the study in recent years of the application to pilots of the prevailing rate employee system. Cross references should be made between the previous parts of the Report where this subject was studied (Part 1, p. 545; Part III, pp. 210–213) and pp. 201–207 of this Part.

ACKNOWLEDGEMENTS

The Commission's difficult task was lightened by the generous co-operation of pilots, shipowners and agents, and their respective associations or organizations. They spared neither cost nor effort to prepare thoughtful submissions and present their views publicly—in fact, many testified several times, often at great inconvenience. After the hearings, they supplied the Commission promptly with additional details needed to complete the record or bring the Report up to date.

The most complete co-operation was also given the Commission by the various Pilotage Authorities, by all Departments and agencies of the Federal Government and by librarians and archivists on whom we have been regularly calling for information and assistance. The Commission takes this opportunity to acknowledge the very special contribution made by the officials of the Department of Transport who at all times received our many inquiries with sympathetic consideration and ready response.

The Commission travelled across Canada, conducted hearings in all provinces except Saskatchewan and Alberta and visited all the principal ports and harbours. Everywhere it was met with kindness and assistance.

The detailed fact-finding investigation with which the Commission was charged in its terms of reference would have been impossible without the excellent assistance it received from all counsel. A heavy responsibility rested on them to ensure, through the examination of witnesses, that the fullest possible factual evidence concerning all pilotage problems was placed on record. They displayed outstanding industry and ability.

The Commission also wishes to acknowledge the most able contributions it was fortunate enough to obtain from law professors of various universities during the summer months. Since their names are not included in the list of Commission personnel at the front of this Report, they are recorded here with their affiliation at the time of their employment: Professors Léo Ducharme (Ottawa University), Gerard V. La Forest (University of New Brunswick), Jean Pineau (Université Laval) and Daniel C. Turack (Ottawa University).

ADDENDUM TO PART IV

Pages 727–9 of Part IV reported the collision between M.V. *Transatlantic* and M.V. *Hermes*, the findings of the subsequent Formal Investigation and the appeal thereon.

Later, the shipowners, cargo owners and insurers involved sued for the recovery of the losses they had incurred. The Exchequer Court by judgment rendered in 1969 (Nord-Deutsche Versicherungs-Gesellschaft *et al* v H.M. the Queen, 1969 I Ex. C.R., pp. 117–140) awarded full liability against the Government of Canada. The Supreme Court of Canada by judgment rendered April 27, 1971, partly reversed the first judgment by also making both ships share in the liability as follows: the Government of Canada 50%, M.V. *Hermes* 30% and M.V. *Transatlantic* 20%. It was held that a major share of the blame had to be borne by the Canadian Government because there was a breach of duty on the part of servants of the Crown responsible for the care and maintenance of the range lights at Pointe du Lac and Rivière du Loup, upon which lights mariners were entitled to place reliance. The pilot of M.V. *Hermes* was held at fault “in advancing towards a position of potential danger at full speed and without having ascertained with certainty its position in the channel.” A smaller share of the blame was to be borne by M.V. *Transatlantic* for two reasons: she was not as close to the north spar buoys as she should have been in the circumstances; her pilot was at fault in that he had observed at a distance of 3 miles that the *Hermes* was in difficulty but did nothing to reduce speed or otherwise prepare for the eventuality, especially since she was navigating against the current to meet another vessel in a confined area (St. Lawrence River Regulations, sec. 12).

The following excerpts from Mr. Justice Ritchie’s notes are of particular interest to pilotage:

“...I think that it must be accepted that pilot.....(of M.V. *Hermes*) did not know where his ship was in the channel when he entered the cut at the east end of the anchorage, and it is also apparent that he did not know where the *Transatlantic* was in relation to the banks of the channel. Under these circumstances (M.V. *Hermes*’ pilot) does not appear to have sought any means of determining the position with more accuracy but was content to rely upon the range lights without reducing speed.

As I have indicated, at the time of the accident there were spar buoys placed on the northern side of the channel and according to the evidence of the pilotof the *Transatlantic*, he had inquired from the signal service and been advised that these buoys had been checked the day before. In my opinion, having regard to the provisions of section 10(4) of the Pilotage Regulations, pilot.....(of the *Hermes*) should have been in the possession of the same information. The section in question reads:

10.(4) Every pilot shall, before his departure to pilot any vessel, comply with any standing orders made by the Supervisor and shall obtain from the

pilotage office information as to the state of the buoys, beacons and channels in the District.

Pilot.....(of the *Hermes*) did not make any inquiries but acted on the assumption that the buoys were not a reliable guide in winter time."

And from the notes of Mr. Justice Pigeon:

"With respect to the contention that to reduce speed in order to meet an upbound ship in the anchorage area would unduly delay navigation, it must be observed that this course of action was one which Captain Irvine said should have been taken only in the particular circumstances of the case, namely in the absence of buoys on the south side of the channel and with another ship coming up to be met near the end of the narrower channel. He expressly said that he would have met the other upbound ships *in the channel*. This distinction is of crucial importance because it disposes of the objections that navigation would be unduly delayed by slowing down in order to meet in the anchorage and that the *Hermes* had met without difficulty three other Ships in the channel above Yama-chiche bend.

The reason for the distinction is the special risk of sheering due to bank suction when entering the channel at the end of the anchorage without being able to rely on anything but two range lights, some six and seven and a quarter nautical miles away respectively. With an upbound ship to be met, it was necessary for the *Hermes* to be lined up almost exactly in the center of the southern half of the channel, a 275-foot wide fairway. If the side of the ship got too close to the submerged bank, suction effects could be disastrous. Because this was not a gradual narrowing but a rather sharp corner, those effects would come quite suddenly and violently, not gradually and mildly as they would if, per chance, once in the channel, the ship happened to creep too close to the submerged bank. In my view, the evidence afforded by the example of pilot Tremblay and the opinion of Captain Irvine, not to mention that of other experts, was quite decisive as to the imprudence in attempting to meet at full speed an incoming ship in the channel, close to the end of the anchorage, without any means of ascertaining the location of the submerged bank other than distant range lights that were known to be to a certain extent inaccurate. This was a special risk that could easily be avoided and it was an imprudence not to avoid it, especially when the pilot was confronted with such a situation for the first time in his experience."

And again:

"In my view, with respect, the trial judge has greatly overstated the effect of the Notice to Mariners of November 13, 1964 which read:

Commercial shipping using the St. Lawrence River Ship Channel between Montreal and Quebec is hereby warned that floating aids to navigation cannot be depended upon after November 30th owing to possible ice conditions.

This notice in general terms routinely issued every year at the proper time did not mean, it seems to me, that buoys were to be ignored throughout the winter season. This would have made them useless. If the Department was going to the trouble and expense of putting some winter buoys in place, this certainly implied that they were intended to be of some use. What the notice said was merely that owing to possible ice conditions "they cannot be depended upon". However, as was his duty under the regulations, the pilot on board the *Transatlantic* inquired from the proper authority as to the condition of the buoys before leaving port. He was told that the buoys had been checked the previous day. As there was practically no floating ice he thus knew that the buoys were reliable. Under those circumstances, the general notice did not mean that he was not to rely on them but only on the range lights."

Part V

STUDY OF CANADIAN PILOTAGE

GREAT LAKES SYSTEM

Chapter A

LEGISLATION

1. LAW AND REGULATIONS

PREAMBLE

For all practical purposes, Part VI of the Canada Shipping Act does not apply to pilotage in the Canadian waters of the Great Lakes system¹, i.e., the St. Lawrence River west of St. Regis in the Province of Quebec and the Great Lakes and their connecting channels and tributary rivers. It was superseded in 1961 by Part VIA whose aim, as far as shipping was concerned, was to establish uniform pilotage requirements through parallel Canadian and United States legislation on both sides of the boundary in that area.

The navigable waterway west of St. Regis passes through both Canadian and United States waters and each country has retained full and complete jurisdiction on its side of the boundary. By treaty, each country has extended to the other freedom of navigation through its own waters so as to permit uninterrupted passage but has not otherwise relinquished any part of its sovereignty.

Prior to the opening of the Seaway in 1959, there was very little need for pilotage service west of Montreal because the only large vessels plying the Great Lakes were regular traders confined to the Lakes. The few small ocean-going vessels which could negotiate the series of narrow locks and canals between Montreal and Lake Ontario posed no serious hazard to navigation and any expert assistance required was readily available below Lake Ontario from Canadian licensed pilots of the St. Lawrence-Kingston-Ottawa District, and on the Great Lakes and their connecting channels from private entrepreneur pilots, locally called "Sailing Masters" (mostly retired Great Lakes Masters), who remained on board for the duration of each voyage.

The opening of the Seaway changed the traffic pattern substantially in that the small canalers were rapidly replaced by lakers built to take maximum advantage of lock dimensions, and a large number of ocean-going vessels of

¹ For the purposes of this Report, the expression "Great Lakes system" has been adopted to resolve the problem arising because the Canadian and United States Acts do not refer in uniform terms to the pilotage waters (both Canadian and United States) of the St. Lawrence River west of St. Regis and the Gt. Lakes and their connecting waters and tributary rivers (vide pp. 5 and 31).

similar size entered the system. In addition to the fact that ocean-going vessels are less manoeuvrable in confined waters than lakers designed for inland navigation, their officers frequently have little local knowledge and actual experience of these waters. The problem is compounded because the Rules of the Road for the Great Lakes differ markedly from the International Rules, and upbound and downbound transiting vessels normally use separate lanes.

Under these circumstances, as the construction of the Seaway neared completion, it became apparent to both Canada and the United States that not only must an efficient pilotage service be placed at the disposal of non-regular traders but also that compulsory pilotage had to be enforced in the locks and other confined areas of the waterway. It was also realized that the legal competency of the pilots should be untrammelled by the international boundary but be determined on the basis of areas of the St. Lawrence River and Great Lakes waterway (while a solution was found on the Great Lakes, the Haro Strait problem in British Columbia remains, Part II, p. 199).

There were many ways to achieve this aim. The one adopted least affected the sovereignty of each country. Through an agreement arrived at during negotiations between Canada and the United States the following system was adopted: each country licenses its own pilots according to its own procedure and retains exclusive jurisdiction over them; the pilots' territorial competency is extended to the waters of the other country through reciprocal legislation; unification of pilotage requirements for shipping is to be achieved through parallel and reciprocal legislation; the provision of services is to be shared equitably between all pilots irrespective of their nationality, both countries are to take steps that the required organization for the provision of services is coordinated to serve all the pilots in each locality, regardless of their nationality; the necessary coordination is to be achieved at the administrative level. The agreements reached at departmental level since the enactment in 1960 of Part VIA C.S.A. and the Great Lakes Pilotage Act are contained in the "Memorandum of Arrangements" subsequently approved by each Government by an exchange of diplomatic notes. This memorandum is not legislation but merely contains the concurrence of each Government in the joint policy to be adopted in order to coordinate the implementation of their parallel statutory pilotage legislation.

For Canada, this meant the enactment of *ad hoc* statutory provisions since the contemplated situation was not permissible under Part VI C.S.A. These appeared in August 1960 as Part VIA of the Canada Shipping Act (8-9 Eliz. II c.40) and came into force and effect when proclaimed May 1, 1961. For the United States, it meant the adoption of the first federal pilotage legislation in the Canadian meaning of the term "pilotage". Although, according to the United States constitution, pilotage comes within federal jurisdiction, Congress had authorized the states to legislate in that field until federal legislation became indicated (Part I, p. 809) (vide the situation in the State

of Washington regarding pilotage in Puget Sound, Part II, pp. 31–33). The necessity for uniform pilotage requirements throughout the U.S. waters of the Great Lakes which border a number of states was considered a case warranting federal legislation. This was enacted by Congress in 1960 as “The Great Lakes Pilotage Act of 1960” (Public Law 86-555, 46 U. S. C. 216 (Ex. 1028)).

(1) CANADIAN PILOTAGE LEGISLATION APPLICABLE IN THE GREAT LAKES SYSTEM

This Canadian legislation is contained in:

- Part VIA of the Canada Shipping Act and the regulations made under it;
- the other provisions of the Canada Shipping Act governing pilotage and pilots which are not in conflict with Part VIA and the regulations made thereunder;
- the applicable statutes and regulations governing pilots who are prevailing rate Crown employees.

This last part of the applicable legislation will be studied in Chapter C when the status and working conditions of the various groups of Canadian pilots are considered.

(A) *Analysis of Part VIA C.S.A.*

Surprisingly, Part VIA contains, and provides for, legislation of very limited scope. As far as shipping is concerned, it is merely compulsory pilotage legislation and, for pilots, only licensing legislation. By contrast with the corresponding United States legislation, it contains no provision for establishing a system to provide and control efficient services. Except for a few reciprocal clauses, it is silent on the basic requirements for a pilotage service co-ordinated throughout the Great Lakes system by pilots of both countries.

(a) *Creation of the Great Lakes pilotage area*

Part VIA first provides that all the Canadian waters of the St. Lawrence River west of St. Regis, of the Great Lakes and their connecting channels, and of any tributary rivers flowing into these waters form a single body of pilotage waters referred to as the *Great Lakes Basin*.

A problem of semantics arises here because the same method and the same terms were not used in the Canadian and United States Acts to refer to the pilotage waters affected or referred to. The apparently general term “Great Lakes Basin” used in Part VIA C.S.A. refers misleadingly only to Canadian waters, and when it becomes necessary to refer to the whole of the pilotage waters, or only the United States part of them, it is necessary each time

to resort to a full description (e.g., subsecs. 375B(5) and (6)). By contrast, in the United States Act, "Great Lakes" is a general term which refers to the whole of the pilotage waters and, whenever it is necessary to refer to the Canadian or United States parts of them, the term is used with the necessary qualificative words, i.e., "the United States waters of the Great Lakes" or "the Canadian waters of the Great Lakes" (p. 31). However, the term "Great Lakes" is ambiguous. In its natural meaning, it excludes the St. Lawrence River west of St. Regis (and possibly the connecting waters of the Great Lakes) and is often used restrictively to mean only the open waters of the Lakes. Failure to adopt the same terms and to resort to the same method of description in the two Acts is an unnecessary cause of confusion which should be corrected. To achieve clarity, the Commission has adopted in this Report the term "Great Lakes system" to refer to the whole of the pilotage waters of both Canadian and United States waters of the Great Lakes, their connecting channels and tributary waters, and the St. Lawrence River west of St. Regis. The necessary qualifying terms are added when it is necessary to distinguish between United States and Canadian components.

(b) *Compulsory pilotage*

Pilotage is to be compulsory throughout the Canadian waters of the Great Lakes system but in different degrees (Part I, p. 532):

- (i) *compulsory piloting* (a vessel must be navigated by a pilot) in those parts of the confined waters of the transit waterway of the "Great Lakes Basin" which are to be defined by regulations made by the Governor in Council as "designated waters" (subsecs. 375A(a) and 375C(1)(a);
- (ii) *compulsory taking of a pilot* elsewhere, i.e., in the "undesignated waters", which comprise mainly the open waters of the Great Lakes but also the confined waters of the various harbours and landing places not within the confined areas of the transit waterway, e.g., the harbours of Toronto, Hamilton, Chicago, Duluth and Thunder Bay, by contrast with Windsor and Detroit.

The definition of these designated waters is contained in secondary legislation to enable any necessary amendments to be made easily. In fact, some of the limits have been modified since they were first defined in 1961.

(c) *Exemptions*

The exemptions are fully set out in the statutory provisions. They can not be withdrawn or modified, either in part or *in toto*, but may be indirectly extended through the device of granting administrative exemptions as provided in the Act.

There is a basic difference between Part VI and Part VIA of the Canada Shipping Act, in that Part VIA is essentially compulsory pilotage legislation and, hence, does not apply to vessels which, as a category, are not subject to

compulsory pilotage. An exemption not only grants dispensation from compulsory pilotage but also permits any vessel so exempt to employ an unregistered pilot at whatever fee may be agreed upon by the two parties. There is no provision in Part VIA corresponding to sec. 354 of Part VI (Part I, p. 207). Despite great similarity in wording, subsec. 375B(4) applies only to vessels that would otherwise be subject to compulsory pilotage. The penalties provided in sec. 375D for hiring an unregistered pilot refer to sec. 375B and, therefore, apply only to cases of compulsory pilotage.

The exemptions are as follows:

(i) *Exemptions to vessels*

- *Small vessels.* All vessels, irrespective of country of registry, less than 250 GRT are fully exempted (subsec. 375B(1)). This applies only to Canadian waters since there is no corresponding provision in United States legislation.
- *U.S. and Canadian inland traders' exemption.* This provision is similar to the 1960 amendment to subsec. 346(*ee*) (Part I, pp. 221–223) with the difference that in the “Great Lakes Basin” the exemption is absolute for both Canadian and U.S. regular traders. The farthest east such vessels may go to remain qualified for the exemption is St. Lawrence River ports, except for occasional voyages to Canadian ports in the “maritime provinces of Canada” (subsec. 375B(3)). This exemption, as far as Canadian lakers are concerned, applies to the whole of the Great Lakes system on account of a similar provision contained in United States legislation.
- *Administrative exemption.* By administrative decision, the Minister may exempt any vessel from compulsory pilotage “upon such terms and conditions as he deems advisable” (subsec. 375B(2)). The Act does not contain a reciprocal clause; in fact, the United States Act does not contain a comparable provision. Since this exemption is not recognized by a specific provision in United States legislation, it applies only to Canadian waters and is mainly used to rectify disparity of treatment towards certain categories of vessels as a result of different methods of classification and different wording in the respective legislations (e.g., the United States legislation does not apply to foreign vessels which are not merchant vessels).
- *De facto exemption.* A vessel is deemed to be exempt if a pilot is unavailable or an emergency involving safety arises. This provision is similar in wordings to subsecs. 354(1)(*a*) and (*b*) (Part I, pp. 207–210) and has the same effect. The non-availability of a registered pilot, whether U.S. or Canadian, is not a simple question of fact but must be a finding (referred to as a *waiver*) made by the Deputy Minister of Transport and communicated to the vessel.

Obviously, this restriction is designed to prevent vessels from proceeding without a pilot when there is a temporary shortage or if the safety of navigation might be endangered by doing so. While the United States Act provides for a similar *de facto* exemption when the United States Coast Guard informs a vessel of the non-availability of registered pilots, neither legislation contains a reciprocal provision. The consequence is that such a *de facto* exemption applies only to Canadian waters when the non-availability was confirmed by the Deputy Minister of Transport, and to U.S. waters when it was confirmed by the United States Coast Guard, and, hence, concurrent findings are required to enable a non-exempt vessel to navigate without a registered pilot a water route lying in both countries.

(ii) *Personal exemptions*

Vessels, irrespective of their country of registry (including United States registered vessels) enjoy an indirect exemption from compulsorily taking a pilot in undesignated waters (but not in designated waters) if one of their officers possesses a certificate of qualification (often referred to as a “*B*” *certificate*) issued by the Minister of Transport, or a pilot’s licence (in the meaning of the term under United States federal legislation, vide Part I, p. 810) issued by the United States Coast Guard, valid for the undesignated waters concerned.

Ships’ officers with the necessary *expertise* in the navigation of undesignated waters, or part thereof, are granted by the Minister of Transport, upon request and after satisfactory proof of their qualifications, a “certificate of qualification” which dispenses the ship in which the holder is employed, provided he is on board, from the obligation of embarking a registered pilot in the undesignated waters for which the certificate applies. This certificate corresponds to the “pilotage certificate” of Part VI C.S.A. (vide Part I, p. 232). The required standard of qualification and the appraisal procedure are left to be established by regulations.

With regard to the nature and scope of exemptions resulting from the “pilot’s licences” issued by the United States Coast Guard, vide p. 35.

Because of reciprocal clauses contained in both Canadian and United States Acts, both types of personal exemptions are valid in Canadian and U.S. waters of the Great Lakes system.

(d) *Registered pilots*

A *registered pilot* in Part VIA is the equivalent of a *licensed pilot* in Part VI. He must first meet the general definition of pilot and, in this respect, the study of the term *pilot* in Part I, p. 22, applies. There can be no argument about the status of such a pilot on board in designated waters; he is not an adviser to the Master but the navigator of the vessel (subsec. 375B(1)).

The definition of *registered pilot*, however, is awkward because it confuses official recognition of a person's qualifications to act as a pilot with the fact of being the pilot of a given vessel. Hence, if this definition were to be taken literally, whenever the term *registered pilot* is encountered in the legislation, it would refer only to the situation which exists when a person holding the proper registration is actually piloting a vessel. It would appear that the simple method used to define a *licensed pilot* (subsec. 2(44) C.S.A.) was not used here in order to avoid confusion with the "pilot's licence" issued by the United States Coast Guard to holders of a U.S. Master's Certificate of Competency. However, the resulting definition is incorrect and should be modified if Part VI_A is to be retained. It is believed that the aim sought would be achieved by merely defining *registered pilot* as the person who, by the certificate of registration issued to him by the Secretary of Transportation of the United States,² or pursuant to regulations made by the Governor in Council, is entitled to act as a pilot, as defined in subsec. 2(64) C.S.A., for that part of the Great Lakes system shown on the certificate of registration. In this respect, the corresponding definitions in the United States Act are more adequate.

The definition also contains an error of correlation. It refers to "ships" while all the other provisions of Part VI_A apply to "vessels". The word "vessel" is the generic term having a larger meaning than ship (subsec. 2(111) C.S.A.) (vide Part I, p. 213). If this definition were to be taken literally, it would amount to granting an automatic exemption to vessels that are not ships.

Registered pilot, therefore, means:

- (i) a person whose qualifications and *expertise* to navigate vessels in the Canadian waters of the Great Lakes system, or part thereof, have been appraised by the Canadian licensing authority and who has been issued by such licensing authority a licence to act as pilot in these waters or any specified part thereof; this licence is called a *Registration Certificate*;
- (ii) the holder of a similar registration certificate issued for the United States waters of the Great Lakes system by the Secretary of Transportation (formerly of Commerce) of the United States under the authority of the Great Lakes Pilotage Act of 1960.

On account of reciprocal clauses contained in both Canadian and United States Acts, such a registration certificate is valid for the waters of the other country within the same sector. A pilot's registration certificate does not *ipso facto* become subject to the pilotage legislation of the other country

² On April 1, 1967, all the functions, powers and duties of the Secretary of Commerce under the United States Great Lakes Pilotage Act were transferred to, and vested in, the Secretary of the Department of Transportation (80 Stat 939, P.L. 89-670), a fact which has not as yet been reflected in subsec. 375A(c)(i) C.S.A.

when he navigates a vessel in the waters of that country, any more than such country has any power over the Certificate of Competency of a foreign Master or officer. Such control continues to be exercised by the licensing authority which issued the registration certificates and which, in the discharge of its surveillance and reappraisal responsibilities, should have the power to withdraw them whenever it becomes apparent that the holders are professionally, physically or morally unfit to act as a pilot; the exercise of such powers is directed against the certificates and, therefore, is not impeded by any question of territoriality, any more than the Minister of Transport would be hampered in his right and duty to cancel the Certificate of Competency of a Canadian officer because the events justifying cancellation occurred outside Canadian waters.

The definition of the qualifications a Canadian registered pilot must possess and the licensing and reappraisal procedure are left to be determined by regulations to be made by the Governor in Council. The Canadian authorities have no power over the required qualifications of United States pilots and uniform standards are to be achieved through negotiations for parallel legislation.

(e) Qualified officers and certificate of qualification

As seen earlier, Part VIA provides that in undesignated waters, i.e., where public interest is unlikely to be directly affected by a shipping casualty, a ship's officer of any nationality possessing the necessary *expertise* in navigating the undesignated waters of the Great Lakes system, or part thereof, is authorized to replace a registered pilot on board his vessel.

The standard of qualification required, together with the appraisal and reappraisal procedure, including the appointment of a licensing authority, is to be defined in secondary legislation.

(f) Pilotage fees and examination fees

The term "pilotage dues" is not used in Part VIA but is replaced by "the fees to be charged in respect of services rendered by a Canadian registered pilot", simplified in the regulations by using the expression "pilotage fees". Nevertheless, they are pilotage dues since they meet the general definition of the term in subsec. 2(70) of the Act. The United States Act uses the expression "rates and charges and any other conditions and terms for pilotage service by registered pilots".

The rates which have to be modified from time to time have been made the subject-matter of regulations. The rate-fixing power of the Governor in Council is not limited by territoriality. The rates are one of the conditions of the registration certificate and should cover all services Canadian registered pilots may be required to perform which, on account of the reciprocal clauses in the parallel legislations, are not affected by territoriality.

These rates do not apply to unregistered pilots because of the specific mention that they apply only to the services rendered by registered pilots (in the case of an unregistered pilot, the charge for his services has to be established by mutual agreement), but it would appear that they would apply when a registered pilot is employed, even by a vessel which is not obliged to employ one, since the applicability of the rates was not limited to cases where compulsory pilotage applies.

The Act also authorizes fixing examination fees by regulations.

(g) *Powers delegated by statute*

Part VIA contains only two delegations of powers:

- to the Governor in Council to make the necessary regulations;
- to the Minister of Transport by administrative decision to limit the number of Canadian registered pilots.

The few subject-matters that may be dealt with through regulations made by the Governor in Council are stated and defined in sec. 375c:

- (i) defining the compulsory piloting zones within the Canadian waters of the Great Lakes system, i.e., Canadian designated waters;
- (ii) defining the qualifications for Canadian registered pilots and making the necessary regulations to provide for their registration;
- (iii) defining the required qualifications for the granting of personal exemptions;
- (iv) establishing pilotage rates and fixing fees for the examination of candidates for pilotage or personal exemptions.

The nature and the scope of each subject-matter will be studied later when the regulations made thereunder are reviewed.

Under Part VIA the number of pilots is not determined by regulations as under Part VI but by administrative decision of the Minister of Transport. By contrast with the United States Act, Part VIA does not enunciate any criterion by which the Minister should be guided. However, this does not mean that he may act arbitrarily. The granting of such discretionary power was no doubt warranted by the general context of the legislation which recognizes the legal competency of U.S. registered pilots. The governing criterion is the same here as under Part VI, i.e., the aggregate number of U.S. and Canadian pilots should be those needed to meet the demand in expected peak periods of substantial duration without overwork, and the permissible maximum should not exceed the number beyond which the pilots will individually have insufficient work to maintain and improve their *expertise*. In addition, if their remuneration depends upon their pilotage earnings, the number should be such as to afford each pilot adequate remuneration. In the Great Lakes system, all these factors will be affected by the number of U.S. pilots who share the workload.

(h) *Penal sanctions*

Part VIA does not provide any penal sanction against a registered pilot.

The sole offences under Part VIA are:

- (i) violation by an owner or Master of the compulsory pilotage requirements or of any regulation made under sec. 375C (it would appear from the limited scope of the permissible regulations that the only possible violation of a regulation would be failure to pay the prescribed pilotage fees, but it is doubtful that this was the intention);
- (ii) a person who is not a registered pilot acting as such.

The penal sanction in all cases is a fine not exceeding \$250 for each day of violation.

(B) *Great Lakes Pilotage Regulations*

The Governor in Council, pursuant to the regulation-making power conferred upon him by subsec. 375C(1) C.S.A., made regulations called the "Great Lakes Pilotage Regulations". The original regulations in P.C. 1961-623, dated April 27, 1961, which became effective May 1, 1961, the same day that Part VIA of the Act was proclaimed, are still in force but some of their provisions, mostly concerning tariff, have been amended since (Ex. 1008): July 24, 1961 (P.C. 1961-1069); October 11, 1962 (P.C. 1962-1449); July 25, 1963 (P.C. 1963-1125); June 30, 1966 (P.C. 1966-1232); October 12, 1967 (P.C. 1967-1964); April 25, 1968 (P.C. 1968-814); August 28, 1968 (P.C. 1968-1692); July 29, 1969 (P.C. 1969-1542); July 8, 1970 (P.C. 1970-1234) and August 12, 1970 (P.C. 1970-1411).

The regulations, except for Schedule A containing the definition of the designated waters and Schedule B containing the tariff, are general in scope and have no provision of a local character.

In conformity with the limited subject-matters permitted, these regulations deal with neither organization nor the provision of services; they touch upon discipline but do not create any offence. Nevertheless, as will appear later, some provisions are illegal, either because they contain an unauthorized further delegation, or because they are so vague that they amount to an absence of legislation, leaving the subject-matters to be determined administratively, which is not permissible.

(a) *Definition of designated waters*

All the confined waters of the waterway situated in the Canadian part of the Great Lakes system have been declared "designated waters" (hence, compulsory piloting). These are composed of five sectors which are grouped in the regulations into three Great Lakes Districts (no doubt to achieve uniformity with the United States classification of their designated waters).

Logically, the Welland Canal sector, which is entirely situated in Canadian waters and bounded by undesignated waters, should have been designated a separate District.

The open waters of the Lakes, together with the confined waters along their shores and their various ports with the notable exception of Kingston, are undesignated waters which do not form part of the three Great Lakes Districts.

The use in the regulations of the term *District* was unfortunate since it created confusion with the same word in Part VI of the Act which has an altogether different meaning. It is considered that the term *District* should be abandoned in the organization under Part VIA and replaced by some other appropriate term which will convey the correct meaning.

Great Lakes District No. 1 (Sector One)

Canadian Great Lakes District No. 1 is the first sector of designated waters and comprises Canadian navigable waters from the eastern limit of the Great Lakes system up to, but excluding, Lake Ontario. Through parallel U.S. legislation, Great Lakes District No. 1 comprises all navigable waters, whether U.S. or Canadian, between these limits.

The eastern limit of District No. 1 is defined in the regulations as "the boundary between the United States and Canada where it crosses the navigable channel of the River St. Lawrence near St. Regis in the Province of Quebec".

The description of the eastern limit is not expressed in the same wording as in the statutory description of the eastern limit of the "Great Lakes Basin" (sec. 375A(b)), i.e., "and the St. Lawrence River as far east as St. Regis in the Province of Quebec". This creates an interpretation problem: if different words are used in legislation, it is assumed that a different meaning was intended, especially when, as in this case, the two descriptions do not refer to the same places. The statutory limit of the "Basin" is somewhat east of the eastern limit of District No. 1 as defined in the regulations. Therefore, it would appear that the intention was to leave an area of undesignated waters at the eastern end of the "Great Lakes Basin". This obviously is not the case, the Governor in Council in its regulations having merely made the eastern limit of Great Lakes District No. 1 coincide with the western limit of the Cornwall District (P.C. 1960-1570, Exs. 829 and 1143), i.e., "by the boundary line between the United States and Canada where it crosses the navigable channel of the St. Lawrence River near St. Regis in the Province of Quebec . . ."

The western limit of District No. 1 is "a line drawn from Carruthers Point light in Kingston Harbour, Ontario, on a true bearing of 127° through Wolfe Island south side light and extended to the shore of the State of New York."

The Seaway ship channel at that end of the District forks into two branches: the main Seaway channel which passes south of Wolfe Island and crosses the boundary line, and the channel north of Wolfe Island which is the eastern approach to Kingston harbour. This eastern approach is not the regular route even for Kingston because it has shallow patches. The main entrance to Kingston harbour is from the west through the open waters of Lake Ontario. Except for about a quarter of a mile of beaches and shallows west of Carruthers Point light, the whole of the Kingston waterfront is included in the designated waters of District No. 1, thus depriving the harbour of the benefits enjoyed by all other Lake Ontario ports of the Canadian personal exemptions that apply only to undesignated waters. This apparent discrimination has prompted the Kingston Board of Trade to recommend that their harbour be made part of the undesignated waters.

Great Lakes District No. 2 (Sectors Two, Three and Four)

Between District No. 1 and District No. 2 lies a large expanse of undesignated waters, i.e., the whole of Lake Ontario except Kingston harbour and, for upbound vessels, the immediate approach to the Welland Canal off Port Weller.

The designated waters of District No. 2 comprise all the navigable waters from the downstream entrance to the Welland Canal to the entrance to Lake Huron, excluding the undesignated waters of Lake Erie. These designated waters comprise sectors two, three and four. The undesignated waters of Lake Erie lie between sectors two and three and do not form part of the so-called District.

These sectors of designated waters comprising District No. 2 are:

(i) *The Welland Canal (sector two)*

—The downstream limit of the designated waters of the Welland Canal realistically varies to conform with different pilotage requirements depending whether vessels are upbound or downbound. For those upbound, the limit is “an arc one mile to seaward of the lighthouse on the outer end of the western breakwater at Port Weller”, in other words, this one-mile arc of open waters in Lake Ontario is the pilots’ boarding area because the pilots are required to bring upbound vessels from the open waters of Lake Ontario into the Welland Canal. For downbound vessels, the limit is south of the north gate of lock no. 1, which means that the pilots disembark in the lock and not in the boarding area because there is no problem navigating out of the lock into the open waters of Lake Ontario.

—At the upstream approach, there is also a boarding area in open waters extending about one mile seaward into Lake Erie. Here it is a line rather than an arc, a manner of description made possible by the fact that the approach is

at the head of the bay and the boarding area ends in shallow water or at headlands on both ends of the line. This description dates from August 28, 1968 (P.C. 1968-1692); up to then, there was no provision for boarding areas.

Since this sector of the waterway is wholly situated in Canadian waters with no adjacent U.S. waters, there is no corresponding definition in United States legislation.

(ii) *Lake Erie western end (sector three)*

—This comprises all the confined Canadian waters at the western or upstream end of Lake Erie, i.e., “Canadian waters of Lake Erie westward of a line running approximately 206° true from Southeast Shoal light to Sandusky Pierhead light at Cedar Point in the State of Ohio” and upstream at the entrance to the connecting channels with Lake Huron. This sector extends about 40 miles between Southeast Shoal and the entrance to the Detroit River, and comprises a wide channel of deep water some three quarters of a mile wide at its narrowest at the downstream entrance of Pelee Passage and the extensive shallows at the western end of Lake Erie where approach channels to the Detroit River have been dredged to 28 feet.

(iii) *Detroit River, Lake St. Clair and St. Clair River (sector four)*

—This comprises the Canadian waters of the connecting channels between Lake Erie and the open waters of Lake Huron. The definition does not provide for a boarding area in the open waters of Lake Huron.

The third and fourth sectors of designated waters of District No. 2 are contiguous with no undesignated waters between. The division of this stretch of undesignated waters into two sectors does not appear to serve any useful purpose. The U.S. confined waters adjacent to the third and fourth sectors comprise the whole of U.S. Great Lakes No. 2 District, whose description contains no division into sectors.

Great Lakes District No. 3 (Sector Five)

Between District No. 2 and District No. 3 lie the undesignated waters of Lake Huron, including Georgian Bay, and of Lake Michigan.

The designated waters which form the Canadian part of District No. 3 comprise sector five, i.e., the Canadian waters of the connecting channels between Lake Huron and Lake Superior, i.e., St. Marys River from the U.S./Canada boundary line as far as longitude 84° 33' west.

No mention is made of the downstream limit because the navigable channels end in U.S. waters at Detour Passage. The northern limit is at the up-

stream end of St. Marys River at the beginning of Whitefish Bay on a line between Jackson Island and Point Iroquois. This definition now coincides with the definition contained in the United States legislation as amended in 1968.

(b) *Registered pilot's qualifications*

The regulations provide that Canadian registered pilots are to be recruited from qualified mariners or from licensed pilots of the Kingston Pilotage District.

A qualified mariner may become a registered pilot for the whole, or any part, of the Great Lakes Basin if he meets the following requirements:

- Canadian residence (the original provision which demanded Canadian citizenship was amended to residence in 1962);
- general marine competency: a Certificate of Competency not lower than Master Inland Waters, unlimited as to tonnage;
- local experience: Master of a vessel over 350 gross tons in the Great Lakes Basin "for such period as the Minister may require";
- physical fitness: good mental and physical health;
- moral fitness: good character and personal suitability;
- success in such examination as the Minister may prescribe.

In fact, the Minister has not made any regulations or rules dealing with the extent of required local experience or the content of the examination and, in practice, these questions are resolved on an individual basis (Ex. 1541 (a)).

The local experience provision is incomplete in that it fails to stress the need for *expertise* in local navigation of the waters to which the registration will apply. Experience acquired somewhere in the Canadian waters of the Great Lakes system should not be sufficient to certify that a person is expert in the navigation of a given sector, because even extensive and thorough experience in one sector can not give a person *expertise* in the navigation of another sector, e.g., the Kingston/Cornwall sector, the Welland Canal, the Detroit/St. Clair connecting channels and the St. Marys River are altogether different situations. To pretend the contrary would indicate that navigation in these sectors is comparable, or easy, in which case there would be little need for pilotage and, hence, pilotage should not be made compulsory. The redelegation of powers to the Minister of Transport was no doubt intended as a way of having this requirement completed by further detailed provisions of local character made by the Minister. However, this is not specified.

This provision is *ultra vires* because Part VI A does not give the Governor in Council power to delegate further any part of his delegated regulation-making power, or to modify the nature of the procedure set forth in the Act for establishing qualifications by making any requirement subject to administrative decision rather than regulation. All qualifications must be spelled out

fully in the legislation. The right of a qualified candidate to seek redress against discrimination would be unenforceable at law if any part of the requirements can not be ascertained objectively without necessitating an administrative decision which may be changed arbitrarily.

The requirement for professional qualifications is also deficient in that no form of theoretical and practical training is required. In the Cornwall District, where the situation is about the same, pilots are recruited from the ranks of qualified mariners. Despite the fact that the District regulations require extensive previous local knowledge and experience, it has been proved that local mariners lack the necessary *expertise* to handle ocean-going vessels which require pilotage services (Part IV, pp. 934 and ff.).

The examination requirement is illegal because it comprises an unauthorized delegation of a legislative power. A candidate should be able to find in the legislation the subjects on which he will be examined and the scope of the examination he will have to pass. The same procedure should have been followed as in subsec. 7(3) of the regulations which grants personal exemptions to ships' officers.

Because of the mutual recognition of the legal competency of the pilots in both countries, the qualifications should be defined and the appraisal procedure devised to ensure that the required local knowledge, experience and *expertise* extend to U.S. waters where a Canadian registration certificate will enable its holder to act as pilot (and vice versa), and avoid the present limitation under subsec. 5(1)(c) of the regulations to Canadian waters resulting from the use of the expression "Great Lakes Basin".

Registered pilots for the Great Lakes may also be recruited from the licensed pilots of the Kingston District, in which event the requirements above listed are waived, even the necessity of submitting to an examination. Such a provision was obviously needed as a transitory measure, but only for District No. 1. As such, this provision has now outlived its usefulness and should be deleted. However, its wording as a standing rule of general character is obviously illegal. First, it is an unauthorized delegation of regulatory power to determine which qualifications Canadian registered pilots should possess. According to Part VIA, such qualification requirements must be set out in the Great Lakes Pilotage Regulations, and not in regulations made under Part VI of the Act. This is true *a fortiori* since the regulation-making authority is not the same. Second, the purpose of the registration process is defeated if the pilot's licence which certifies its holder's *expertise* for the Kingston Pilotage District, i.e., the Canadian side only of Great Lakes District No. 1, is to be taken as proof of his qualification to act as pilot in the U.S. waters of Great Lakes District No. 1, and in other parts of the Great Lakes system.

The provision was obviously included in the regulations to avoid the necessity for double licensing when part of the Canadian waters of the Great

Lakes system is made a Pilotage District under Part VI C.S.A. However, to make such delegation of regulation-making powers to the Pilotage Authority permissible, a specific statutory provision to that effect would have been necessary, but none was enacted.

(c) *Registration*

Parliament has delegated to the Governor in Council the responsibility for making the necessary legislation to provide "for the registration of Canadian registered pilots".

Registration is merely another term for licensing. No doubt, it was used in the interest of uniformity in parallel statutory legislation. *Pilot's licence* could not be used because it already existed in U.S. legislation where it has an altogether different connotation. The term agreed upon to replace *licensed pilot* in the Canadian meaning was *registered pilot*; *licensing* became *registration* and *pilot's licence* became *registration certificate*. A registration certificate is merely the official document establishing that the holder's qualifications to act as pilot in the pilotage waters stated therein have been appraised by a duly appointed licensing authority, and vouches that he possesses the necessary qualifications and *expertise*.

(i) *Licensing authority*

For the purpose of licensing Canadian pilots, the whole of the Great Lakes system (including U.S. waters) is considered a single pilotage organization under a single licensing authority. A licensing authority is a public, quasi-judicial entity created by legislation for the purpose of appraising the qualifications of candidates for pilotage and to grant successful candidates the required official document which authorizes the holders to exercise the profession of pilotage within the waters it defines.

While the Act identifies the United States licensing authority (the Secretary of Transportation, see foot note p. 9), the Canadian licensing authority is mentioned only by reference to the regulations that must be made by the Governor in Council for the registration of pilots (subsec. 375c(1)(c)C.S.A.), and the Great Lakes Pilotage Regulations are not clear on the matter. This is a definite deficiency.

The Minister of Transport would appear to be the licensing authority but his rôle in the registration of Canadian pilots (apart from his statutory power to determine their number) is limited in the regulations to the clerical aspects of the function, as follows:

—It is his duty that a register is kept for Canadian Great Lakes pilots and that the names of those who have qualified to act as pilot for the whole or part of the "Great Lakes Basin" are entered, together with the terms and conditions imposed (sec. 4).

- It is his responsibility that each pilot whose name is entered in the register is given a registration certificate in conformity with the terms and conditions of the licensing decision.
- He may extend from year to year the validity of the registration certificate of a pilot who has reached the age of 65 if he is satisfied that the pilot is capable of performing his duties (subsec. 6(4)).

The Minister is not given any appraisal power (except in the case of registered pilots who have reached the age of 65) and the legislation is deficient in that it does not provide for the appointment of an Examiner, or for the creation of a Board of Examiners, legally entrusted with the quasi-judicial function of appraising the competency of candidates. It is true that subsec. 5(1)(g) of the regulations requires the candidate to pass “such examination as the Minister may prescribe”. However, it would be only by stretching the normal interpretation of the text and context to take this provision as the authority for the Minister to appoint an Examiner or a Board of Examiners. Apart from the question of the legality of the ensuing redelegation of regulating powers, all this provision can be purported to mean is that it authorizes the Minister to determine the subject-matters on which the examination is to be held. This also is clearly shown by the context: this provision is included in the list of requirements a candidate must meet to obtain a registration certificate.

The power to appoint a person or create a Board with a quasi-judicial function is a matter that must be explicitly covered in legislation—it can not be deemed to exist by mere inference. Under Part VI, the authority for licensing power is found in the statutory definition of Pilotage Authority (subsec. 2(69)), the definition of licensed pilot (subsec. 2(44)) and the Pilotage Authority’s regulation-making power (subsec. 329(d)). This also has been the procedure followed in other parts of the Act whenever a person or an authority was to exercise some judicial or quasi-judicial power (vide, for example, secs. 129 and ff. C.S.A. regarding the appointment, powers and duties of Examiners for Certificate of Competency as Masters, mates and engineers). Reference is also made to the study contained in Part I, C. 9, regarding the judicial power which Pilotage Authorities are purported to possess under Part VI C.S.A.

COMMENTS

This deficiency in the regulations is a serious matter because it affects the validity of the registration certificates so far granted under subsec. 5(1) of the regulations.

The Minister is powerless to issue a valid registration certificate (except to a Kingston District licensed pilot) unless all the requirements set out in subsec. 5(1) are met, the last being appraisal on local knowledge and

expertise. This can not be done unless an appraising authority is duly appointed, but this is not the case under the present defective legislation.

(ii) *The right to be appointed registered pilot*

Part VIA C.S.A. (like Part VI) allows the licensing authority no choice or discretion in the discharge of the licensing process. Any candidate who meets the requirements prescribed in the regulations is entitled by right to a registration certificate, provided the number fixed by the Minister for the area concerned has not been reached or, if so, when a vacancy occurs.

The free exercise of the profession can not be infringed upon unless specifically provided for in statutory legislation. Secondary legislation enacted in this domain must be founded on a clear, explicit provision contained in statutory legislation and such delegation must be interpreted strictly. Apart from the question of the maximum number of registered pilots which the Act leaves to be determined administratively by the Minister (subsec. 375c (2) C.S.A.), the only permissible restrictions that may be imposed on the right to obtain a registration certificate are the qualifications candidates are to meet and the licensing procedure to which they are subject, as defined in regulations made by the Governor in Council (subsec. 375c(1)(b)). The term "qualifications" when read in the context can only mean the professional, physical and moral qualifications candidates must be found to possess through the appraisal process, and must retain thereafter. The expression "providing for the registration of Canadian registered pilots" can only refer to the appointment of a licensing authority and the establishment of the licensing procedure but can not be interpreted as granting any discretion in the process. Therefore, a candidate who meets the requirements listed in subsec. 5(1) of the regulations and is denied arbitrarily the right to have his qualifications appraised would be treated unjustly, provided there is a vacancy, and would be entitled to redress through prerogative recourse before the appropriate regular court. The same would hold if other terms and conditions are imposed (for instance, the requirement that the candidate must become a Crown employee) which are not contained in the regulations and could not be included under the governing statutory provisions.

Furthermore, it would be illegal to do indirectly what can not be done directly, such as not providing a candidate a fair and reasonable opportunity to obtain registration, or by decreasing the authorized number of pilots in the area concerned in order to bar one particular candidate. The power of the Minister to fix the number of Canadian pilots for each part of the Great Lakes system is not an arbitrary power but must be decided objectively to meet the needs of the service.

(iii) *Registration certificate—limitation as to territorial competency*

The Act provides, but only indirectly, that a person may be granted a registration certificate valid only for a given part of the Canadian waters of the

Great Lakes system, i.e., in the definition of the term "registered pilot" who is said, *inter alia*, to be a person "who is registered as a pilot . . . to navigate all or any of the waters of the Great Lakes Basin" (subsec. 375A(c)).

On the strength of this authority, the Governor in Council in subsec. 5(3) of the regulations provided that "registration of a pilot . . . may be for all the waters of the Great Lakes Basin or any portion thereof."

It is at least surprising to find that legislation which covers such an extensive pilotage area as the Great Lakes system and which goes so far as to impose compulsory pilotage on vessels in certain areas permits the issuance of registration certificates unlimited as to territory. This means that it would still be legally possible to revert to the former Sailing Master procedure under which a pilot remains on board for the complete voyage in the Great Lakes system and pilots wherever pilotage services are required. The fact that the Act makes it possible would indicate that Parliament and Congress, acting on the advice of their experts on the subject, were of the opinion that the necessary *expertise* in navigating the Great Lakes system could be obtained in a general way and that there was no part of the confined waters which contained navigational hazards and difficulties which would require extensive local knowledge and experience.

(iv) *Registration certificate—limitation as to competency*

Neither Part VIA C.S.A. nor the regulations provide for the grading of pilots. In view of the recent Supreme Court judgment (*Baldwin v. Gamache*, Part IV, pp. 256 and ff.), to render the grade system possible it would be necessary to make a statutory provision authorizing its adoption.

(v) *Registration certificate—duration*

Part VIA does not provide for any limitation on the duration of the validity of a registration certificate, except by implication since the very nature of the certificate makes it subject to withdrawal if the pilot no longer possesses the necessary qualifications. The provisions of Part VI that apply to pilots' licences do not apply to certificates of registration. Because different terms were used, in order to make the statutory provisions of Part VI concerning pilots' licences applicable to certificates of registration, it would have been necessary to make a specific statement in Part VIA, but this was not done. The Government fully realized the position by repeating in its regulations (subsec. 6(2)(b)) the provision of sec. 338 C.S.A.

However, since the imposition of an arbitrary limitation on the duration of a registration certificate is an infringement on the free exercise of the pilots' profession, it can not be validly done unless specifically provided by, or authorized under, a statutory provision, but this is not the case. Hence, subsec. 6(2)(b) of the regulation is *ultra vires*, despite its advisability, as is the provision of subsec. 5(3) of the regulations which purports to give

power to an unnamed authority to limit the duration to a fixed term. Appropriate statutory provisions would have been necessary as was done under Part VI C.S.A. with subsecs. 329(*n*) and (*o*) and secs. 336 and 338.

(vi) *Registration procedure*

The Act made the Governor in Council responsible for making the necessary regulations to define the registration procedure (subsec. 375c(1)(*b*)). The regulations in this respect merely deal with the clerical functions of keeping a register and issuing registration certificates. The regulations fail to establish the procedure for appraisal, i.e., how and when applications are made, who is responsible for appointing the Examiner or the Board of Examiners, how the examination is to be carried out and who imposes the necessary terms and conditions applicable to registration certificates.

(d) *Certificates of qualification*

Non-exempt vessels, irrespective of the country of registry, may enjoy a partial exemption, i.e., valid only for the undesignated waters, if they have on board one of their regular officers with the necessary *expertise* who has been appraised and issued a "certificate of qualification". This certificate is often referred to as a "B" certificate and corresponds to the "white flag" certificate of Part VI (vide Part 1, p. 232). This personal exemption is not valid in designated waters where the vessel must be navigated by a registered pilot with territorial competency for the sector concerned.

Subsection 375c(1)(*c*) makes the establishment of the qualifications a subject-matter of delegated legislation of the Governor in Council. These qualifications are set out in sec. 7 of the regulations.

- (i) The applicant must belong to the regular complement of a vessel. Therefore, his certificate of qualification becomes worthless if he pilots a vessel to which he does not belong, or is not a *bona fide* member of the crew. This restriction is designed to prevent the subterfuge that may otherwise be adopted to circumvent the obligation to employ an official pilot, i.e., signing on a person solely to transit pilotage waters. The certificate of qualification is a personal right and, while the certificate still lasts, is valid for any vessel of which the holder becomes a regular member of the complement.
- (ii) Re professional competency, one of the following certificates or licences is required:
 - a certificate or licence, from any country, entitling its holder to act as Master of a steamship on foreign voyages; or
 - a Canadian Certificate of Competency as Master of an inland waters steamship or a home-trade steamship.

- (iii) Re local experience, the applicant must have made within the preceding two years at least two round voyages into the waters for which he is to be deemed qualified (the requirement for only one voyage in the case of Lake Superior was deleted in 1961).
- (iv) Since, except for ports, navigation in undesignated waters means open water navigation, the local knowledge required is realistically limited to a good working knowledge of the Rules of the Road for the Great Lakes, proficiency in the English language sufficient for the effective use of radiotelephone in navigation and a knowledge of the practice on the Great Lakes of following separate courses, having due regard to the suitability of such courses for vessels of deep draught.

The required examination is to be held by an Examiner designated by the Minister. If the candidate passes, he must be issued with a certificate of qualification which extends to his vessel a pilotage exemption while in the undesignated waters of the Great Lakes system. It is not necessary for the certificate-holder to operate the vessel: it is sufficient for him to be on board, i.e., the same requirement as would otherwise apply if a registered pilot had been employed (subsecs. 375B(1)(b)(ii) and (iii)).

COMMENT

The Act does not contain any provision which would authorize any limitation on duration of exemption. By contrast with the registration certificates, the Act does not provide for certificates of qualification to apply only to part of the undesignated waters. The comments made with regard to the duration of registration certificates apply *mutatis mutandis*.

(e) *Reappraisal powers and procedure*

Registration certificates and certificates of qualification are acquired rights which can not be withdrawn except on authority based on specific, clear statutory provisions. They are not mere privileges which could be limited, suspended or withdrawn at discretion. The comments made in Part I with regard to the surveillance and reappraisal powers of the Pilotage Authority in the case of licensed pilots (Part I, C. 9) apply here *mutatis mutandis*.

The only statutory provision contained in Part VIA on which reappraisal powers could be founded is subsec. 375C(1)(b) which authorizes the Governor in Council to make regulations "prescribing the qualifications for, and providing for the registration of, Canadian registered pilots". Only by stretching interpretation can it be maintained that the power to establish the qualifications of candidates and to create the necessary appraisal mechanism specifically granted by this provision automatically implies the power

to create a surveillance and reappraisal authority endowed with all the necessary enquiry and judicial powers. This comment applies also to certificates of qualification about which the statutory provision (subsec. 375c(1)(c)) is even less explicit.

In sec. 8 of the regulations, the Governor in Council purports in very wide terms to give the Minister such reappraisal power. This section is wrongly entitled "Disciplinary Measures" because, just as in Part VI, reappraisal powers and discipline were confused. This is obvious when the contents of the section are studied. It can not be maintained that the withdrawal of a certificate of registration is a disciplinary measure because its holder has become unfit due to illness or injury, or because for some reason or another he has failed to maintain the required standard of professional qualifications, or that his moral fitness has deteriorated to the extent that he is no longer trustworthy.

This provision is silent on the procedure to be followed. It merely states that the Minister may cancel a certificate of registration or personal exemption "on such proof as he deems reasonable". This is inconsistent with the Bill of Rights and natural justice.

(f) *Examination fees*

Pursuant to sec. 375c(1)(d), the Governor in Council has power to fix by regulations the fees to be charged for an examination. These fees were established at \$5 in all cases for a pilot and \$5 for an applicant for a personal exemption, provided the examination takes place within regular office hours; otherwise, \$25 plus reasonable expenses incurred by the Examiner.

The fee for the examination for personal exemption certificates is warranted. It would also be warranted for pilotage candidates, provided the status of the pilots does not become Crown employees or quasi-employees in a system of fully controlled pilotage (vide Part I, p. 260).

(g) *Pilotage fees*

The tariff has been repeatedly amended since it was first adopted in 1961, and the amendment of Aug. 12, 1970, modified its structure by the addition of a variable factor based on ship dimensions.

Under the 1961 system, the rates were the same for all vessels irrespective of their size. For services rendered in Districts, there were flat rates for specified pilotage trips. In undesignated waters, the rates were based on time navigating plus berthing and unberthing fees and reasonable travelling expenses. Detention *en route* for any other reason except ice, weather or traffic (except between Dec. 1 and April 8) called for a detention charge payable from the first hour. A further detention charge applied after the first hour in the case of late departure or detention for the ship's convenience at the end of an assignment. There was also a cancellation charge.

With the 1970 amendment all the foregoing structure and items were retained (but as basic rates to be varied through the new element) exactly as they were except for the basic amount which was raised and for some slight modifications, such as basing the time rate for pilotage in undesignated waters on periods of six hours rather than 24 hours as in the past, charging detention from the first hour when the pilot was retained at the end of an assignment for the ship's convenience and also the deletion of reimbursement of travelling expenses. Through a formula based on their dimensions, ships are grouped into four categories, the actual rate for each category being obtained by multiplying the applicable basic rates by the factor (called "weighting factor") for that category, these factors being 0.85, 1.00, 1.15 and 1.30 of the basic rates. Hence, smaller ships pay dues computed at 85% of the basic rates, etc.

In addition, the 1970 amendment provided for a 50% increase in the basic rates in the case of a joint assignment of two pilots, i.e., one and a half times the basic rates that would have applied if only one pilot had been assigned. By contrast with the U.S. corresponding legislation, the Canadian regulations do not specify the circumstances in which such double despatching would be permissible and by whom it should be authorized. The Canadian regulations are silent on the subject of despatching (p. 12).

(c) Applicability of the Provisions in Part VI and of Other Pilotage Provisions in the Canada Shipping Act

Part VIA C.S.A. is a separate piece of pilotage legislation enacted to meet an exceptional situation, i.e., pilotage requirements in the Canadian as well as the United States waters of the Great Lakes system and the necessary provisions for the extension of the legal competency of the pilots of both countries over the waters of the other country, the licensing of pilots with competence beyond the territorial waters of Canada and the fixing of rates for their services.

By contrast with the statutory legislation of the United States which it is supposed to parallel, the Canadian legislation is totally deficient in providing for the organization and control of the service, and partly deficient even as a licensing system.

It would appear that Part VIA was drafted under a misconception about the nature of a pilot's licence (whatever name it may be given) and the scope of Part VI. It is apparent that a pilot's licence was considered merely a privilege which could be granted, restricted, modified and withdrawn at any time at the discretion of the licensing authority. Therefore, there was no need for any statutory enactment to cover the organization and control of the provision of services because, if the pilots' status was to be employees of the licensing authority, i.e., civil servants, the necessary control could be

effected under the authority of the employer/employee relationship; if, on the other hand, the pilots refused to become employees, it was assumed that such control could be imposed by the device of creating a Pilotage District under Part VI C.S.A. The opinion held at that time was that subsec. 329(f) made the control, management and direction of the provision of services possible through appropriate regulations, but this is not the case (Part I, p. 39).

The fact that Part VIA C.S.A. is a separate piece of legislation is apparent from the drafting method used and is confirmed by the amendment made to Part VI by the addition of sec. 356A.

Parliament, by deliberately avoiding in Part VIA the use of all key words of Part VI, has clearly indicated that, despite the similarities that may actually exist in the subject-matters concerned, they should be considered for purposes of legislation as distinct, dissimilar matters. The licensing scheme established in Part VI C.S.A. is described with the terms "pilotage district", "pilotage authority", "licence", "licenced pilot", "pilotage dues", "compulsory payment of dues" and "ships", but these have been carefully avoided in Part VIA by using instead the terms: "Great Lakes Basin", "designated and undesignated waters", "registration certificate", "registered pilot", "Minister and Deputy Minister", "certificate of exemptions", "pilotage fees" and "vessels", and by using phrases to refer to the two aspects of compulsory pilotage. When the term "pilot's licence" is used, it is qualified to show that it has not the meaning of Part VI but the altogether different meaning in United States legislation. The only reference to Part VI is merely to ensure that none of its provisions with regard to freedom of pilotage, compulsory payment of dues and its scheme of exemptions apply, since these matters are fully dealt with for the "Great Lakes Basin" in sec. 375B.

At first sight, it may appear that this dissimilarity in terms is only apparent in that it was the indirect result of the requirement to draft parallel legislation and the desirability for uniformity's sake of employing the same terms to refer to the same matters and that, therefore, unless it is clearly indicated as in sec. 375B, the various provisions of Part VI would automatically apply despite the disparity in terms. This intention, however, is not clear in the Act and it is not permissible to assume that it is the case. For this to be so, it would have been necessary to state it explicitly, e.g., that the provisions of Part VI and other provisions of the Act concerning licensed pilots would apply to Canadian registered pilots *mutatis mutandis*.

Any doubt that may have been entertained in this regard is dispelled by sec. 356A C.S.A. The indirect result of adding this section to Part VI when Part VIA was introduced is twofold:

—It establishes that Part VIA is a separate piece of legislation and that all the provisions contained in Part VI which pertain to the

licensing scheme provided therein and its organization can not be used to supplement the provisions of Part VIA, even if they do not conflict with them.

- It confirms that when Part VIA was enacted the intention was that Pilotage Districts could still be created under Part VI in the Canadian waters of the Great Lakes system and that, therefore, when a Pilotage District is created, all the provisions contained in Part VI pertaining to Pilotage District organization could then be employed, provided they did not conflict with the overriding provisions of Part VIA.

Nevertheless, without resorting to the creation of a Pilotage District, the general provisions contained in Part VI and in the rest of the Act would appear to be applicable but when the matter is examined in detail it is seen that the very few provisions which at first sight are still applicable have remained so rather by chance than by intention.

There are very few general provisions in Part VI or in the other parts of the Act (Part I, pp. 21 and ff.) that could be deemed to apply to pilotage in the Great Lakes Basin in the absence of a Pilotage District created under Part VI; often, their context rules out their applicability.

Sections 341 to 343 C.S.A. might possibly be considered applicable in part, since they refer to pilotage dues whose statutory definition (subsec. 2(70)) would, if taken out of context, apply to the pilotage fees of Part VIA. This, however, is doubtful because these sections are contained in Part VI and in that context (as specifically stated in sec. 341) refer only to pilotage dues that are established by regulations made by the Pilotage Authority according to subsec. 329(h) C.S.A., but this does not apply. Furthermore, payment could be made only to the pilot who earned the dues through his services, since in Part VIA there is no provision by which payment could be made to someone else, even the Government.

Section 344 C.S.A., which provides for the withholding of a ship's clearance as a means of pressure to enforce payment of pilotage dues, also does not apply because the Customs Officer can only do so at the request of a Pilotage Authority.

The general provisions of sec. 359 regarding the carrying over of pilots could apply (vide Part I, pp. 189 and ff.), but sec. 360 regarding quarantine detention does not apply since its application is limited to licensed pilots.

Section 361 which defines the extent of the service that a pilot is obliged to render to a ship, i.e., when he may quit the ship, does not apply because it refers to licensed pilots and Pilotage District limits. This leaves a substantial deficiency in the legislation applicable to registered pilots since there is

nothing in Part VIA to determine the extent of their obligations and duties and this is not one of the subject-matters that could be covered by delegated legislation.

It would appear that subsec. 362(2) which limits the pecuniary liability of a pilot to \$300 would apply to Canadian registered pilots (as well as to any pilot (Part I, p. 34) including U.S. registered pilots), depending whether the pilotage contract took place in United States territory or Canadian territory and where the casualty occurred. This question would, therefore, be subject to the application of the rules of private international law regarding liability arising from contracts and torts. The exception to the limitation of liability rule contained in sec. 371 would also apply. If a pilot was employed as a result of misrepresentation which affected the safety of a ship, he would be deprived of the protection of subsec. 362(2), in addition to the offence committed.

In the offences that may be committed by pilots, the only ones that would apply (provided they are committed in Canadian waters) are those created by secs. 369 and 371. The other statutory offences, and those that may be created by regulations under subsec. 329(f), apply only to licensed pilots. Part VIA does not create any offence for pilots or authorize the making of regulations that a registered pilot could possibly violate. Here again, this deficiency in the legislation of Part VIA is the obvious result of the assumption that registered pilots would be Crown employees and that these questions of discipline could be attended to by the Minister, or his representative, as the employer through the powers derived from the contract of employment. In cases where the pilots were not Crown employees (e.g., the Kingston District), the device of a Pilotage District formed under Part VI would make these necessary provisions of control applicable.

With regard to a Preliminary Inquiry (secs. 555 and ff.), a Court of Formal Investigation (secs. 558 and ff.) and a Court of Inquiry under sec. 579 that could be created by the Minister under Part VIII of the Act, all have no power over the certificate of registration of a Great Lakes pilot because their only power over a pilot is directed against his "licence" as defined in the Act. The word "certificate" as used in Part VIII of the Act applies only to certificates held by Masters, mates or engineers.

There is no doubt that the intention was that the organizational scheme provided under Part VI would also remain permissible in the Great Lakes Basin but subject to the provisions of Part VIA. However, the creation of a Pilotage District achieves very little that could not have been obtained through regulations under Part VIA, and there is absolute incompatibility when the pilot's services are to be provided in U.S. waters as well as Canadian waters.

The only advantage in creating a Pilotage District would be to make good the shortcomings in the licensing scheme of Part VIA because the Pilot-

age Authority under Part VI possesses some reappraisal powers (although still very incomplete) and has the power by regulations to subject the pilots to a code of discipline.

However, in order to establish any semblance of compatibility, the territorial competency of registered pilots must not extend beyond District limits and, hence, such competency would have to be limited to Canadian waters. In the Great Lakes system, this situation would exist only in the Welland Canal and in Canadian ports situated in the undesignated waters of the Lakes. If the pilots' territorial competency were to extend over U.S. waters, the regulations the Pilotage Authority would have to make in order to meet the ensuing requirements of the service would be totally beyond its jurisdiction. This method was tried only in Great Lakes Pilotage District No. 1 because the pilots of the Kingston District were the only Canadian pilots in the Great Lakes Basin who refused to become Crown employees. The regulations the Pilotage Authority made show the insuperable legal obstacles encountered (pp. 152 and ff.) and, in addition, certain statutory provisions which necessarily form part of Part VI create incompatible situations under these circumstances, e.g.,

- The jurisdiction of the Pilotage Authority is limited to the territory of its District, and the limited surveillance and control powers it possesses apply only when the pilots are inside the District. An impossible situation results because many pilotage assignments have to be performed partly in U.S. waters.
- Sec. 361 C.S.A. establishes an absolute right on the part of any licensed pilot to quit a ship when the District limit is reached, but there is nothing in Part VIA which, as a condition of his registration certificate, obliges a registered pilot to remain on board a ship until the pilotage trip is completed within the territorial competency of the registration certificate, or up to the limit of such competency.
- By virtue of sec. 359 C.S.A. a pilot has a statutory right to be paid \$15 daily indemnity plus board, lodging and transportation allowance if a ship takes him outside the limits of the District.
- Part VI applies to all ships, whether or not they enjoy an exemption. Therefore, ships which do not fall under the application of Part VIA have a statutory right to employ an unregistered pilot, but, because of the existence of a Pilotage District under Part VI, would be compelled in such a case to employ a licensed pilot (secs. 354, 356 and 356A).
- To require a Canadian pilot to hold a pilot's licence as well as a registration certificate is to add a requirement which is directly in conflict with the provisions of Part VIA, since the qualifications

required to become a registered pilot must be fully determined in the regulations made by the Governor in Council pursuant to subsecs. 375A(c)(ii) and 375C(1)(b). It is illegal to impose any conditions by other means. The present provision of subsec. 5(2) of the Great Lakes Pilotage Regulations which waives all the regulation requirements for admission into the service whenever a pilot holds a licence issued by the Kingston Pilotage Authority is an unauthorized and illegal delegation of regulation-making power. To require that candidates be subjected to two licensing processes bearing on the same subject-matters could, in effect, result in the denial of the licensing authority's power under Part VIA by the imposition of unreasonable licensing requirements for the pilot's licence which may be imposed by the Pilotage Authority through its own regulations. The fact that the Minister of Transport happens to be at the same time the licensing authority under Part VIA and the Pilotage Authority of the Kingston Pilotage District is only a factual coincidence which does not affect the legal situation. In effect, the Pilotage Authority could through this device be in a position to interfere with the duties and responsibilities of the licensing authority under Part VIA and even hamper it completely by failing the candidate at the examination for a pilot's licence. In the case where a candidate succeeded in obtaining a certificate of registration but failed to obtain a pilot's licence, he would then be competent to pilot in U.S. waters in view of the reciprocity provision in United States legislation, and also to act as pilot in the Canadian waters over which registration certificates extend, provided they are *outside* the District waters but *not in* the Pilotage District—clearly an absurd situation. On the other hand, under such arrangements, a Canadian pilot holding a pilot's licence but failing his registration certificate would not even be able to pilot within the Pilotage District (except in cases where unregistered pilots are authorized to act), since a registration certificate is an absolute prerequisite in the Great Lakes system when compulsory pilotage applies.

(2) UNITED STATES GREAT LAKES PILOTAGE LEGISLATION

United States Great Lakes pilotage legislation is fully contained in an *ad hoc* Act of Congress and in the regulations made thereunder. This became necessary because there was no federal legislation on pilotage in the Canadian meaning of the term, i.e., the navigation of vessels by qualified mariners expert in local navigation and not members of the crew.

The United States federal pilotage Act (by contrast with Part VIA C.S.A.) covers fully all aspects of pilotage services to be provided by free entrepreneur pilots, either singly or grouped in association for that purpose, under the supervision, surveillance and limited control of the Government. *Vis-à-vis* shipping, it is essentially compulsory pilotage legislation and, hence, does not apply to excluded or exempt vessels. It also provides for uniformity of pilotage requirements and harmony with Canadian legislation through parallel legislation and the necessary reciprocal legislative provisions to assure shipping similarity of treatment in both U.S. and Canadian waters. It deals with the organization of the service and defines the extent of the surveillance and control the United States Federal Government is to exercise. Again, in sharp contrast with Part VIA, co-ordination of secondary legislation and of the broad aspects of the organization of the provision of services to be shared equitably between United States and Canadian pilots is made a statutory requirement.

(A) *Great Lakes Pilotage Act of 1960*

The federal pilotage Act is known as the "Great Lakes Pilotage Act of 1960" (Public Law 86-555; 74 stat. 259) enacted June 30, 1960 (Ex. 1028). It has not been amended except indirectly by the Act which created the Department of Transportation (80 stat. 931; 49 U.S.C. 1965 (a)(4)), the Secretary of Transportation superseding the Secretary of Commerce in his functions and responsibilities under the Pilotage Act. Its main features are studied hereunder in the same order as analysis of Part VIA.

(a) *Creation of the Great Lakes system*

The pilotage waters to which the Act applies are the same as in the Canadian legislation, i.e., the Great Lakes system. However, different methods of reference and different terms have been used (pp. 5 and ff.). The term "Great Lakes" is defined for the purpose of the Act and the regulations made under it as a general term to mean all the pilotage waters, whether in Canadian or United States territory, within the area referred to in this Report as "Great Lakes system", i.e., all the navigable waters of the St. Lawrence River west of St. Regis and the Great Lakes, their connecting and tributary waters and adjacent port areas. When a distinction has to be made in the United States legislation, the necessary qualificatives are used ("United States waters of the Great Lakes" (subsecs. 3(a) and (b)) or "Canadian waters of the Great Lakes" (subsecs. 3(c) and 9(c))).

The Act also contains a provision (subsec. 9(a))—which no doubt was necessary in the United States legislative context—"No State, municipal or other local authority shall have any power to require the use of pilots or to regulate any aspect of pilotage in any of the waters specified in this Act."

(b) *Compulsory pilotage*

The Great Lakes Pilotage Act contains the same conditions as Part VIA with regard to compulsory pilotage, i.e., compulsory piloting (or mandatory pilotage as it is at times called) in designated waters and compulsory taking of a pilot elsewhere. The exclusions and exemptions are in substance the same but are expressed differently to agree with the United States federal legislative context and, in general, its provisions are more complete. The designated waters in the United States part of the Great Lakes system are left to be defined by secondary legislation, in this case an order or proclamation of the President of the United States who shall be guided by "the public interest, the effective utilization of navigable waters, marine safety, and the foreign relations of the United States".

In designated waters, the vessels subjected to compulsory pilotage shall have in their service a United States or Canadian registered pilot, registered for the waters concerned, "who shall, subject to the customary authority of the master, direct the navigation of the vessel in those waters." In undesignated waters, a registered pilot must be on board, available to direct the navigation of the vessel at the discretion of and "subject to the customary authority of the master".

The substantial differences between United States and Canadian legislation in the description and scope of compulsory pilotage requirements exist because the two countries have a different basic philosophy of pilotage and compulsory pilotage and, also, an altogether dissimilar background of statutory legislation.

In the United States, *a priori*, compulsory pilotage may only be imposed on commercial vessels. United States vessels engaged in inland and coastal navigation are already governed by federal legislation which makes local *expertise* possessed by at least one of the regular complement a mandatory requirement for the navigation of any given part of United States waters. Hence, these vessels are excluded from the application of the Great Lakes Pilotage Act. By comparison, the scope of application of compulsory pilotage under Part VIA C.S.A. is more extensive. The classification of vessels in United States legislation into numbered, public, registered and enrolled vessels (Part I, p. 809) does not correspond, except in a very general way, to the Canadian system of classification. This explains the differences in the text of the two legislations when referring to categories of vessels and, also, the provision in the Canadian Act for administrative exemptions as a means of correcting any disparity of treatment. For instance, following an exchange of diplomatic notes, the Minister of Transport, September 27, 1962, issued a standing order granting such an administrative exemption concerning public

vessels owned by the Federal Government of the United States. This order reads as follows:

“Pursuant to subsection (2) of section 375B of the Canada Shipping Act, the Government of the United States, as owner of vessels, and the masters of such vessels, are exempt from the requirements of subsection 1 of the said section 375B.” (Ex. 1396(1)).

According to the Great Lakes Pilotage Act, the situation with regard to compulsory pilotage is as follows:

(i) *Foreign vessels.* With regard to foreign vessels, the Act applies only to merchant vessels and an exception is made of Canadian lakers. Therefore, the Act does not apply to:

—foreign non-merchant vessels. Hence, automatically pleasure yachts, warships, hospital ships and government ships of any nation, and, possibly also, ships engaged in salvage operations, tugboats and fishing vessels, depending on the meaning given to the term “merchant vessels”, are not subject to compulsory pilotage. There is no corresponding provision in Part VIA C.S.A., with the result that when such vessels are in Canadian waters they are subject to compulsory pilotage, unless they qualify for an exemption under Canadian legislation (for instance, pleasure yachts which come under the small vessels exemption), or unless the disparity of treatment is corrected by an administrative exemption granted by the Minister of Transport.

—Canadian lakers. The text of the exception in favour of Canadian lakers is the same as contained in subsec. 375B(3) C.S.A. Hence, Canadian registered vessels plying regularly on the Great Lakes or whose operations are primarily between Great Lakes ports and St. Lawrence River ports, even if they make an occasional voyage to “the maritime provinces of Canada”, enjoy complete statutory exemption in both United States and Canadian designated and undesignated waters. This exception does not apply to lakers of other nationalities, such as British Commonwealth lakers.

(ii) *United States vessels.* As far as United States vessels are concerned, the Act applies only to “registered vessels”, i.e., those engaged in trade with other nations. Hence, numbered vessels (mostly pleasure yachts and small craft), public vessels (United States warships, vessels belonging to, or operated by, the federal, state, or municipal governments of the United States), and enrolled vessels (commercial vessels engaged in inland and coastal voyages) are excluded from the application of the Act. This extensive exclusion is first provided indirectly by the compulsory pilotage provisions of the Act (subsecs. 3(a) and (b)) which apply only to named categories of vessels, i.e., foreign vessels as defined in the Act and United States registered

vessels. It is also provided by subsec. 99(b) which possibly may apply to some "registered" vessels if they meet the conditions:

"Nothing in this Act shall apply to any vessels of the United States, which in its navigation of waters to which this Act is applicable, is required by any other Act to have in its service and on board pilots or other navigating officers licensed by the United States for such waters."

The United States Act requires reciprocity of treatment while in Canadian waters only for U.S. enrolled vessels, Canadian lakers are excluded from the category of foreign vessels to which the United States Act applies on condition that enrolled vessels are assured similarity of treatment in Canadian legislation:

"2(c) The exceptions of section 2(f) applying to Canadian vessels shall be effective only so long as Canada permits enrolled vessels of the United States to be navigated on Canadian waters of the Great Lakes solely by qualified officers licensed by the head of the Department in which the Coast Guard is operating."

While this condition is not exactly met in Part VIA, which contains no general exemption for enrolled vessels of the United States, two provisions are applicable, although they may not fully cover the requirement. Nevertheless, any discrepancy could be corrected by an administrative exemption.

- The personal exemption resulting from the "pilot's licence" issued to a ship's officer by the United States Coast Guard is recognized whether the vessel is a United States enrolled vessel or a vessel of any other category, but it applies only to undesignated waters.
- The only provision which applies throughout the Canadian waters of the Great Lakes system is the exemption in favour of United States lakers, whether they are registered or enrolled vessels, provided they meet the conditions set therein, i.e., their voyages, except for an occasional voyage to "the maritime provinces of Canada", are on the Great Lakes only or between Great Lakes ports and St. Lawrence River ports. Hence, enrolled vessels which do not meet these conditions, although they may have on board an officer holding a Coast Guard pilot's licence for the corresponding United States waters, would be subject to compulsory pilotage in Canadian designated waters unless an administrative exemption is granted.

(iii) *General exemptions.* The Act also provides for two types:

- De facto exemption.* Vessels are exempted from compulsory pilotage requirements when an emergency affecting the safety of the vessels themselves or their cargo occurs or when a registered pilot is unavailable. In the latter case, the *de facto* exemption is not automatic and the necessary fact has to be established by the appropriate designee of the United States authority. Like the parallel Canadian provision, this exemption has no extra-territorial appli-

cation on account of the absence of the usual reciprocity clause and, hence, for a voyage involving navigation in the waters of both countries, the required authorization (i.e., a *waiver*) has to be obtained from both United States and Canadian authorities.

—*Personal exemptions.* In the undesignated waters only, foreign merchant vessels or United States registered vessels are exempted from the obligation of having on board a registered pilot if a member of its regular complement is an officer whose qualifications for navigation in the waters concerned are certified by a “pilot’s licence” issued by the United States Coast Guard or a “certificate of qualification” issued by the appropriate Canadian authority under Part VI C.S.A. Extra-territoriality is ensured by the usual clause (subsec. 3(c)) whose condition is met in Canadian legislation.

Under United States federal legislation, a pilot’s licence means that the holder possesses the necessary *expertise* to navigate a vessel in the United States waters described in the licence. It is issued to any mariner who possesses the basic Certificate of Competency, has had the required experience in navigating the waters concerned and has successfully passed the required examination on local knowledge before Coast Guard officials. A United States vessel may not navigate any United States waters unless there is on board an officer whose Certificate of Competency is endorsed for those waters. This so-called “pilot” may or may not be a member of the regular complement of the vessel (Part I, p. 810). In the case of United States vessels under registry, such “pilot” would have competency only in the undesignated waters and provided he is the Master or other member of the regular complement of the vessel concerned (subsec. 2(e) and subsecs. 3(a) and (b)).

(c) *Registered pilots*

The Act defines separately the terms “United States registered pilot” and “Canadian registered pilot”. The two definitions are the same in substance and mean a person, other than a member of the regular complement of a vessel, who holds a Master’s Certificate of Competency issued by the United States or Canadian authorities authorizing navigation in the Great Lakes system and who, in addition, has been registered as a Great Lakes pilot by the Secretary of Transportation or by the appropriate Canadian agency.

By contrast with Part VIA which leaves to be determined by secondary legislation made by the Governor in Council the qualifications to be met by registered pilots and the registration procedure, the United States Act leaves little to be covered by regulations. Taking advantage of the existing federal

shipping legislation, the licensing process has been divided into two stages, each the responsibility of a distinct licensing authority:

- (i) Appraisal of marine qualifications and *expertise* in the navigation of given U.S. waters (professional fitness) is the responsibility of the United States Coast Guard. An unlimited Master's licence authorizing navigation on the Great Lakes, which has been endorsed for pilotage on routes specified therein, issued by the Coast Guard ("pilot's licence") is one of the prerequisites to obtaining a "registration certificate". Surveillance and reappraisal powers over such professional competency and local *expertise* are in the exclusive jurisdiction of the Coast Guard, and the suspension or cancellation of a Master's certificate or the so-called "pilot's licence" obliges the Secretary of Transportation to revoke or suspend the pilot's registration certificate.
- (ii) The registration authority is the Secretary of Transportation or his designee. His licensing functions consist of verifying the other prerequisites, terms and conditions, established by him by regulations, concerning physical and moral fitness.

Availability for service when required and agreement to comply with all applicable regulations are inherent statutory conditions of the certificate.

The Act specifies that among the terms and conditions that may be imposed is the limitation of the registration certificate as to territorial competency and duration. The description of the part or parts of the Great Lakes system within which the holder is authorized to perform pilotage shall not be inconsistent with the terms of the pilotage authorization in the "pilot's licence". The question of duration is to be defined by regulations.

The registration authority is to provide fair and reasonable opportunity for registration of United States pilots subject to equitable participation of United States registered pilots with Canadian registered pilots.

The Secretary has the power and the duty to suspend or revoke the registration certificate whenever the pilot fails to meet the required standards of qualifications or contravenes the terms and conditions of his registration, other than professional competency as mariner and pilot.

The power of the Secretary and of the Coast Guard in the discharge of their respective reappraisal functions is made subject to the rules governing revocation and suspension proceedings contained in the Administrative Procedure Act (46 U.S.C. 1001-1011, Ex. 1028), a statute which is applicable to all administrative agencies of the United States Government. This Act prescribes, *inter alia*, that in adjudication proceedings every interested party "shall have the right to present his case or defense by oral or documentary evidence, to submit rebuttal evidence and to conduct such cross-examination as may be required for a full and true disclosure of the

facts.” It also prescribes the rule governing the conduct of public hearings, including the procedure subsequent to these hearings, and provides for judicial review of administrative actions taken by these agencies (pp. 38 and 46).

(d) *Regulation-making authority and powers*

Except for the definition of designated waters which is a responsibility of the President, the sole regulation-making authority is the Secretary of Transportation. He is authorized by general law to re-delegate any of his regulation-making powers subject to such policies and directives as he may prescribe. The scope of such regulations is as follows:

- (i) Qualifications, terms and conditions to be met by United States registered pilots (other than professional competency as mariners and pilots). The Act specifies the criteria. The qualifications, terms and conditions are those that will ensure adequate and efficient pilotage service, and will provide equitable participation of United States pilots with Canadian registered pilots and fair and reasonable opportunity for registration. The qualifications relating to a pilot's professional competence are governed by another statute and the required regulations are issued by “the Head of the Department in which the Coast Guard is operating”.
- (ii) The period of validity of registration.
- (iii) If the Secretary has authorized the formation of pools by voluntary associations of United States registered pilots, he has to establish such rules and regulations as are considered necessary for their operation.
- (iv) The fixing of rates, charges and other conditions or terms for services performed by registered pilots. The Act enunciates the criteria. These rates, charges and conditions or terms shall be fair and equitable giving due consideration to public interest and the reasonable cost and expense of providing and maintaining such facilities and arrangements as are required for the efficient performance of pilotage services. There should be uniformity of rates with those established by the Canadian authority (p. 39).

The United States Administrative Procedure Act referred to earlier requires that the public be allowed to participate in the regulation-making process, thereby enabling all those who may be concerned to express their views before the proposed regulations become effective. The text of the proposed regulations must be published in public notices in which the date and place of the required public hearing are given. This public procedure will be waived if it is deemed to be impracticable and contrary to public interest. An example of such a public notice is the one published April 6, 1966, con-

cerning amendments to the Great Lakes Pilotage Regulations and the Great Lakes Rules and Orders. These were approved effective July 1, after a public hearing April 30, as stated in the public notice (Ex. 1028). The Act also provides for judicial review of the decisions of administrative agencies. (Regulation-making for pilotage in Canada, vide Part I, Recommendation 19, pp. 515 and ff.)

(e) *Direction and organization of the provision of services*

The only controls the United States Government may apply under the Act over the provision of services are by making regulations, approving pool working rules, exercising surveillance, prosecuting violations of the legislation and withdrawing authorization to operate a pool if the pilots' association concerned fails to meet its obligations. Neither the Government nor its agency, the Great Lakes Pilotage Administration, may become otherwise involved in the administration and direction of the provision of services.

The status of the United States registered pilots is that of private contractors in competition with other pilots. It is their individual right as private contractors to join in private partnerships, and even commercial corporations, for the purpose of exercising their profession. These are the voluntary associations of registered pilots to which reference is made in the Act. In theory, in a given area, there may be a number of such associations and also a number of pilots who operate individually.

If no pool exists there, the Government has only a very indirect and remote means of control over the profession. Associations of pilots and individual pilots not members of any association vie among themselves for clients and may give preference to one vessel over another. As far as the provision of services is concerned, their only obligation is to be constantly available.

When there is at least one pilots' association in a given pilotage area, the Secretary of Transportation or his designee may authorize it to assume responsibility for establishing and operating a pool of pilots for that area with a view to providing more efficient service. These associations are voluntary and the Government has no way of forcing pilots to form one or to oblige any existing association to accept the responsibility for establishing and operating a pool. When an association has been authorized to form a pool, the extent of the Government's control over the provision of services is through the imposition through regulations of terms and conditions, but, if the association fails to meet its obligations, the only remedial action at the disposal of the Secretary or his designee is prosecution for infractions committed and, ultimately, the abolition of the pool.

The purpose of such a pool of pilots is to group for administrative purposes all the pilots in a given area to provide in common for accessory

services, such as pilot vessels, to divide the workload equally among the available pilots through equitable despatching, to collect pilotage fees and to pool earnings.

The Act empowers the Secretary through regulations to decide where pools may be established, to define the prerequisites a pilots' association seeking the privilege to operate a pool must meet and to define the accessory services to be provided by the pool and the terms and conditions the association must meet. It is also his duty to see that United States pools of pilots are co-ordinated on a reciprocal basis with similar arrangements made by Canadian authorities. The Secretary may audit and inspect the administration and operation of the pools and prescribe a uniform accounting system.

(f) *Co-ordination of legislation applicable to regulations and of pilotage organization and administration with Canada*

The aim sought by Canada and United States regarding pilotage in the Great Lakes system was, in addition to uniformity in pilotage requirements and recognition of the legal competency of the pilots on the waters of the other country, co-ordination of organizations for the provision of services on an equal basis by pilots of both countries. The parallel statutory legislations were arrived at through negotiation and agreement. The contents of the remaining legislation and the form the joint organization should take were also left to negotiation and agreement. The difference in the two statutory legislations on this subject is that in the United States Act co-ordination and co-operation between the two countries were made a statutory requirement, while Part VIA is silent on the matter.

The United States statutory legislation makes such negotiations and agreements mandatory requirements regarding the following matters:

- equitable participation by United States registered pilots with Canadian registered pilots in the pilotage service, *inter alia*, by establishing the number of pilots who may be registered by each country;
- if pools of pilots are authorized, the Secretary may require that pooling be co-ordinated on a reciprocal basis with similar arrangements established by the Canadian authorities;
- the establishment of joint or identical rates, charges and any other conditions or terms for services by registered pilots.

(g) *Advisory Committee*

The Secretary is authorized to appoint an Advisory Committee of three public members. This Committee's responsibility is to review proposed pilotage regulations and policies and make such recommendations as are deemed appropriate. There is no corresponding provision in Part VIA C.S.A.

(h) *Penal sanctions*

The penal provisions are in substance the same as in Part VIA except that it is a civil penalty, instead of a fine, whose maximum is \$500 per day of violation:

- (i) for the owner, Master or any other person to permit navigation of a vessel in violation of the compulsory pilotage provisions;
- (ii) for an unauthorized person to navigate a vessel in violation of the compulsory pilotage provisions;
- (iii) for violation by anyone, including registered pilots, of any of the regulations made by the Secretary pursuant to the Act.

The enforcement of provisions (i) and (ii) is the responsibility of the Coast Guard; of (iii), the Secretary with additional powers to remit or mitigate a penalty.

(B) *Regulations Made by the President of the United States*

By Proclamation No. 3385 dated December 22, 1960, amended by a further Proclamation dated June 10, 1968 (Ex. 1028) the President of the United States pursuant to sec. 3(a) of the Act defined those parts of the United States waters of the Great Lakes system which thereby became "designated waters".

These designated waters are fully contained in three homogeneous sectors respectively entitled District 1, District 2 and District 3. Except for the Canadian sector of the Welland Canal, which is fully situated in Canadian waters, the limits of these designated Districts correspond to those on the Canadian side of the boundary defined in the Canadian regulations (pp. 12-16).

—District 1 comprises the United States waters of the St. Lawrence River between the international boundary at St. Regis and a line at the head of the River running approximately 127° true between Carruthers Point Light and South Side Light (Wolfe Island) and extended to the New York shore.

—District 2 comprises all United States waters of Lake Erie westward of a line running approximately 026° true from Sandusky Pierhead Light at Cedar Point to Southeast Shoal Light; all waters contained within the arc of a circle of one mile radius eastward of Sandusky Pierhead Light; the Detroit River; Lake St. Clair; the St. Clair River, and northern approaches thereto south of latitude 43°05'30" N.

—District 3 comprises all United States waters of the St. Marys River, Sault Ste. Marie locks and approaches thereto between latitude 45°57'N at the southern approach and longitude 84°33' W. at the northern approach.

(c) *Regulations Made by the Secretary*

The regulations made by the Secretary under the Great Lakes Pilotage Act of 1960 were contained in his Department Order No. 169, entitled "Great Lakes Pilotage Administration, Establishment, Functions and Responsibilities" made October 25, 1960, amended August 21, 1962, and superseded by another order bearing the same number November 13, 1962. The main features are as follows:

- (i) Its purpose is to create a constituent organization unit called "Great Lakes Pilotage Administration" headed by an Administrator and to delegate to him most of the powers conferred on the Secretary by the Act.
- (ii) The Administrator is appointed by the Secretary to perform his functions and exercise his authority, except with regard to the remission or mitigation of penalties and the appointment of members of the Advisory Committee, with power of re-delegation except concerning regulation-making and the imposition of civil penalties in cases of violation of regulations made under the Act.
- (iii) The functions of the Administrator consist of establishing and administering an effective system of regulated pilotage in cooperation with the State Department and the U.S. Coast Guard with regard to the exercise of their responsibilities under the Act, and to issue and administer the necessary regulations to ensure the adequacy and efficiency of the pilotage service. As for regulated pilotage, he has to arrange with Canada for a co-ordinated system, the determination of the number of pilots and the number and location of pilot pools, the equitable participation between Canadian and U.S. pilots in the provision of services and the establishment of rates. He is to act as the registration authority, authorize the establishment of United States pilot pools and issue the required rules and regulations for their operation, *inter alia*, a uniform system of accounting, perform audits and inspect pool operations. In addition, he is to exercise the necessary surveillance and is vested with power to impose civil penalties for violations of regulations.
- (iv) The Advisory Committee is to review proposed regulations and policies, assist and advise the Administrator in reviewing the operation of the pilotage system and provide him with any other advice he may ask for.

When the responsibility for implementing the Great Lakes Pilotage Act was transferred from the Department of Commerce to the Department of Transportation, the Secretary of Transportation issued Department of Trans-

portation Order 1100.1 dated March 31, 1967, which superseded Department of Commerce Order No. 169. By this Order the Secretary of Transportation delegated to the Commandant of the U.S. Coast Guard all the functions, powers and duties vested in him under the Act. This Order, except for the necessary modifications to reflect the changes in authority, is otherwise the same in substance as Order No. 169 which it replaced. The "Great Lakes Pilotage Administration" has become the "Great Lakes Pilotage Staff", the "Administrator" has become the "Commandant of the Coast Guard" and his *ad hoc* representative the "Director, Great Lakes Pilotage Staff" on the staff of the "Commander, 9th Coast Guard District".

(D) *Regulations Made on behalf of the Secretary*

The regulations made pursuant to the regulation-making power re-delegated in Department Order 169 were contained in three sets of regulations:

- The Great Lakes Pilotage Regulations (46 CFR 401) concerning the registration of pilots, the establishment of pools by voluntary associations of United States registered pilots, and the rates, charges and conditions for pilotage services.
- Great Lakes Pilotage Rules and Orders (46 CFR 402). These are rules and orders which the Administrator was authorized or required to make under certain provisions of the Great Lakes Pilotage Regulations.
- The Great Lakes Pilotage Uniform Accounting System Manual (46 CFR 403).

The "Pilotage Regulations" and the "Rules and Orders" are both regulations. The former contain most of the provisions of general application and those of a fairly permanent nature, e.g., the main purpose of the July 1, 1966, amendment was to transfer from the "Rules and Orders" into the "Regulations" those provisions that had been found to be of a "stable continuing nature". It is not deemed necessary for the purpose of this Report to study the "Uniform Accounting System Manual".

On October 9, 1967, the regulations were further amended by the Coast Guard Commandant to make them regulations of the Department of Transportation and on December 1, 1968, they were consolidated. Except for the amendments made to reflect the changes in authorities responsible for the implementation of the Act (e.g., replacing "Administrator" by "Director"), the new regulations are in substance the same and the analysis hereunder of the former regulations is still valid.

Effective July 7, 1970, the Great Lakes Pilotage Regulations of December 1, 1968, were amended June 24, 1970, to introduce a new rate structure taking into consideration vessels' dimensions, and to provide for the rates in case of a two-pilot assignment, modifications that had been agreed upon by Canada and the United States in a new Memorandum of Arrange-

ments, and to effect minor clarifying changes in the text of the regulations (p. 24).

(a) *Great Lakes Pilotage Regulations*

The purpose of the Great Lakes Pilotage Regulations is to carry out those provisions of the Great Lakes Pilotage Act of 1960 "relating to the registration of United States pilots, the formation of pools by voluntary associations of United States registered pilots and the establishment of rates, charges, and other conditions or terms for services performed by registered pilots to meet the provisions of the Act." The main features can be summed up as follows:

(i) *Registration of pilots*

- Requirements and qualifications for registration.* In addition to the requirements prescribed in the Act (which are repeated in the Regulations) the applicant must comply with those established in the Regulations, e.g., United States citizenship, good moral character and temperate habits; compliance with the physical standards prescribed by the Administrator.
- Training requirements.* The number of applicant pilots is determined by the Administrator and the criterion is the expected need for registered pilots. An applicant must have had satisfactory service within five years preceding the date of application varying in length depending upon the function on board and the size of the vessel, e.g., one season of eight months as Master, or four seasons as licensed Deck Officer on the Great Lakes in enrolled vessels not less than 2,500 GRT. Where a pool exists, the training of applicant pilots is made the responsibility of the pilots' association charged with the operation of the pool. Time under training with United States or Canadian registered pilots can count to meet the experience requirement. Qualification as radar observer is also required.
- Registration procedure.* The candidate must have completed the minimum number of trips prescribed in the Rules and Orders by the Administrator in the waters for which application is made (in ocean-going vessels in company with a registered pilot within one year of the date of the application), completed a course of instructions prescribed by the association, met the requirements and qualifications for registration and completed satisfactorily a written examination prescribed by the Administrator on the Great Lakes Pilotage Act and Regulations, the Memorandum of Arrangements and other related matters including the Working Rules and Operating

Procedures of his District. The pilots' association concerned is to submit its recommendation together with reasons for the registration of the applicant. The certificate of registration issued to a pilot found qualified is valid for a term of two years, or until the expiration of his unlimited Master's licence, or until he reaches the age of 65, whichever occurs first. Temporary certificates of registration may be issued by the Administrator to an applicant pilot or to a retired registered pilot in order to ensure adequate, efficient pilotage services for a period of less than one year.

- Territorial competency.* The definition of the pilot's territorial competency on the certificate of registration must not be inconsistent with the terms of the pilotage authorization in his Coast Guard licence.
- Renewal of certificates of registration.* The registered pilot has a right to the renewal of his registration when the two-year term has expired. If he applies for renewal, the Administrator must renew the certificate as long as the pilot still meets all the requirements and qualifications. In case the renewal is denied for cause, the applicant is given a notice in writing in which the cause is mentioned; thereupon, he may apply for a hearing.
- Suspension and revocation of certificate of registration.* The Administrator may suspend or revoke a certificate when its holder no longer meets the requirements and qualifications or has violated a legislative provision. When public interest or safety requires, the Administrator is authorized to impose pending investigation a preventive suspension not in excess of 30 days. The regulations reiterate the right of the pilot concerned to a hearing and to be represented by counsel, and reproduces the provision of the Administrative Procedure Act relating to procedure and the questions of burden of proof, appearance, testimony and cross-examination. It also provides for review of the Examiner's decision by the Administrator.
- Reports.* A pilot is required to report to the Administrator any shipping casualty in which he was involved, in addition to any other report he may be required to file with other authorities. Each pool is to submit a monthly report of availability of all the United States pilots and applicant pilots of that pool and of Canadian pilots who are assigned to that pool for administrative purposes.

(ii) *Establishment of pools by voluntary associations of United States registered pilots*

The prerequisite for the formation of a pool is the existence of an association of registered pilots meeting the following conditions:

- financial means and the necessary equipment;
- assurance of the accessory services indicated for the area concerned;
- willingness to accept the required duties and responsibilities;
- prior application for authorization to form and operate a pool.

The association must agree to provide the pilotage services on a “first-come, first-served” basis to vessels giving proper notice, submit working rules for the approval of the Administrator, adopt the system of accounting prescribed by him and be subject to his audit and inspection, submit annual financial statements and co-ordinate on a reciprocal basis its pool operations with similar pool arrangements established by the Canadian Government. Canadian registered pilots utilizing the facilities of the despatching services of any authorized pool are required to comply with the pool’s working rules.

It is neither automatic nor made compulsory by legislation for the pilots serving in the area where the pool is established to belong but, in practice, they have no other alternative than to join. If they fail to join the pool, they are not entitled to reciprocal despatching and related services by United States and Canadian pilotage pools as provided for by the Memorandum of Arrangements, and are considered not continuously available for service; hence, they may be subject to suspension or revocation proceedings.

Any pilot who utilizes the facilities and despatching services of a pool must comply with its working rules and other rules related to such facilities and services. The association operating the pool may require from U.S. pilots a written power of attorney for the pool to bill for services and deduct authorized expenses, as well as an engagement to comply with all its rules. A pilot who refuses to comply with this request may be denied the facilities and services of the pool with the same consequences as suffered by a pilot who fails to join the pool.

(iii) *Rates, charges and conditions for pilotage service*

These are the same as adopted by the Canadian Authority. There are additional provisions prohibiting making any charges other than those prescribed without the approval of the Administrator, and setting up a procedure for the adjudication of disputed charges.

By the June 24, 1970, amendment, the U.S. Director and Canadian Regional Superintendent were given power to authorize the assignment of two pilots to a ship when justified by circumstances (p. 25).

(iv) *Penalties for operating without a registered pilot*

This part of the Regulations provides for the procedure for obtaining from the Coast Guard certification of the non-availability of a registered pilot required to give entitlement to the *de facto* exemption. If the pilotage pool is unable to furnish a pilot within six hours of the time the pilotage services are required, a report must be made to the Administrator through the Coast Guard with all the necessary particulars that may affect safety, after ascertaining from the appropriate Canadian Supervisor of Pilots that no pilot can be obtained from that source. Every reasonable effort is to be made to prevent delay to vessels. Any vessel which proceeds without complying with this regulation is deemed to have contravened the Act.

(b) *Great Lakes Pilotage Rules and Orders*

The Regulations establish a right for the pilot concerned to a hearing and to be represented by Counsel, provide for the procedure, deal with the questions of the burden of proof, appearance, testimony and cross-examination and provide for review of the Examiner's decision by the Administrator.

The Great Lakes Pilotage Rules and Orders deal with the same topics as the Great Lakes Pilotage Regulations.

(i) *Registration of pilots*

—*Requirements and qualifications for registration.* Health and eyesight standards are defined.

—*Training requirements.* The minimum numbers of trips in the various channels and ports which the applicant pilots for each District are required to complete in ocean-going vessels in company with a registered pilot within one year of the date of application for registration are established, e.g., in District No. 1, five round trips between Cape Vincent and Snell lock, five trips on Lake Ontario, three round trips in Toronto harbour and one round trip in each of Ogdensburg, Oswego, Rochester and Hamilton. The Rules and Orders also establish the minimum criteria that must be met in a course of instructions prescribed by a pilots' association:

—manoeuvring characteristics of the various types of vessels and propulsion machinery;

—effects of ocean-going vessels in restricted waters;

—use of tugs, berthing procedure in locks and piers, and transiting bridges;

—search and rescue and civil defence procedures;

—basic helm and engine telegraph orders in Greek, Spanish, German and Italian;

- communication, security and signal procedures on the Great Lakes as prescribed by the Coast Guard, St. Lawrence Seaway Development Corporation, U.S. Corps of Army Engineers and Port Authorities;
- Customs, Immigration, Quarantine, Department of Agriculture and Coast Guard Regulations applicable to United States registered and foreign vessels on the Great Lakes;
- Great Lakes Pilotage Act and Regulations, Memorandum of Arrangements;
- miscellaneous subjects including manoeuvring in recovery, collision, fire and explosion procedures and manoeuvring in ice;
- radar plotting and use of foreign-made navigational equipment.

(ii) *Establishment of pools*

The only provision is to indicate that five working rules have been submitted by the voluntary associations authorized to establish pilotage pools and have been approved, i.e.,

- working rules and despatching procedures for District No. 1, amended and adopted by the St. Lawrence Seaway Pilots Association, Cape Vincent, approved as of March 25, 1965;
- joint (interpool) working rules for United States and Canadian Districts No. 1 and No. 2, adopted by the St. Lawrence Seaway Pilots Association, Cape Vincent; Lakes Pilots Association, Inc., Port Huron; and the Supervising Pilot, Department of Transport, Port Weller, approved as of Sept. 15, 1965;
- working rules for District No. 2, adopted by the Lakes Pilots Association, Inc., Port Huron, approved as of May 15, 1967;
- joint (interpool) working rules for United States and Canadian Districts No. 2 and No. 3, adopted by the Lakes Pilots Association, Inc., Port Huron, the Supervising Pilot, Department of Transport, Port Weller, and the Lake Superior Pilots Association, Inc., Duluth, approved as of October 25, 1963.
- working rules and despatching procedures for District No. 3, adopted by the Lake Superior Pilots Association, Inc., approved as of March 22, 1965.

These working rules, together with the Kingston Pilotage District By-laws, will be discussed during the study of pilotage organization in the different sectors of the Great Lakes system.

2. HISTORY OF LEGISLATION

The present legislation governing Great Lakes pilotage and the organization developed from it result from a combination of established practice, former legislation and agreements between Canada and the United States to establish uniform pilotage requirements over the whole of the Great Lakes, reciprocal recognition of the competency of pilots and, where required, co-ordinated organizations to ensure orderly, equal participation in the provision of services by the pilots of both countries.

The need for pilots and, hence, for pilotage legislation arises only in relation to vessels whose Masters and officers lack the necessary *expertise* in local navigation. There was no need for organized pilotage on the Great Lakes until ocean-going vessels began trading west of Montreal after World War I, and up to the opening of the Seaway in 1959 the small vessels which could negotiate the 14-foot canals and locks between Montreal and Kingston were not serious safety hazards and encountered no special difficulties that could not be met by general experience. A qualified officer with reasonable experience of shiphandling in the canals and locks east of Kingston could readily acquire the little local knowledge he needed to navigate throughout the rest of the Great Lakes system. Under these circumstances, the requirements of the time were met adequately by employing at Montreal a Great Lakes "pilot", i.e., a Sailing Master, who remained for the whole voyage on the Lakes and until the vessel reached Montreal outbound.

Prior to the opening of the Seaway, lakery up to the present Seaway's permissible dimensions plied the whole of the Great Lakes system west of Prescott on the St. Lawrence River because the dimensions of the Welland Canal and the Sault Ste. Marie locks (except for the Poe lock which has since been increased) were the same as now, thus permitting a large interlake trade in bulk cargo, especially iron ore and grain from Lake Superior ports to transshipment facilities as far down as Prescott. The grain was transported from there in small canalers to further transshipment facilities situated on the St. Lawrence River available to ocean-going vessels, e.g., Montreal, Trois-Rivières and Quebec. The construction of the Seaway with locks and canals equalling the dimensions of the Welland Canal made these arrangements obsolete by allowing the formerly landlocked lakery to proceed directly to these transshipment terminals, while also permitting ocean-going vessels of Seaway dimensions to proceed up the Lakes for grain. With the enlargement of the Poe lock, the former situation is repeating itself but only west of the Welland Canal.

The need for public control to ensure the qualifications and availability of pilots arose when the traffic of ocean-going vessels increased. The only legal means available to establish such control under the governing Canadian legislation was by creating Pilotage Districts but this solution had only limited

application because Pilotage Districts and the jurisdiction of their Authorities could not extend beyond Canadian waters. Only one Pilotage District was created for this purpose, i.e., the St. Lawrence-Kingston-Ottawa District in 1933. Such control was most needed between Montreal and Kingston where the channel was almost exclusively in Canadian waters and all the narrow locks and canals were located. This affected the Sailing Masters because, although neither pilotage nor the payment of dues were made compulsory, they were thereby prohibited from piloting between Montreal and Kingston and, hence, their former boarding area in Montreal had to be moved to Kingston. Although pilotage is not compulsory under the legislation governing Pilotage Districts, whenever a pilot is employed he must be a licensed pilot (sec. 354 C.S.A., sec. 347, 1934 C.S.A.). Unwillingness by a number of vessels and some United States and Canadian Sailing Masters to accept this change in the system proved a major problem and resulted in the division of the District in 1960 at Cornwall so that the compulsory payment of pilotage dues could be imposed in the wholly Canadian Montreal-Cornwall sector to force vessels to employ licensed pilots.

The opening of the Seaway in 1959 greatly increased deep sea traffic on the Great Lakes because the new locks and canals between Montreal and Kingston allowed ocean-going vessels of the same dimensions as the largest lakings to reach the Great Lakes system. New navigation and safety problems were created in the confined waters of the connecting channels and the general *expertise* and knowledge of the Sailing Masters no longer sufficed. Since it was essential to acquire and maintain local knowledge and experience of each area of confined waters, groups of local pilots had to be organized. Because these confined waters are partly in the U.S.A. and partly in Canada, the two countries had to co-ordinate pilotage requirements and organization. This was achieved by the enactment in 1960 of *ad hoc* pilotage legislation for all the navigational waters west of St. Regis: Part VI_A C.S.A. by the Canadian Parliament and the Great Lakes Pilotage Act of 1960 by the United States Congress.

The Canadian waters of the present Great Lakes District No. 1 formed part of the St. Lawrence-Kingston-Ottawa District until its division November 17, 1960, at Cornwall to form two separate Districts: the Cornwall District between Montreal and St. Regis, and the Kingston District from St. Regis to Kingston. Hence, the historical background of its legislation and pilotage organization up to 1960 is the same as for the Cornwall District (Part IV, pp. 876-93).

The partition of the former District meant little in practice. It merely gave formal recognition to the former *de facto* division with the difference, however, that the legal limit between the two Districts was established to correspond to the eastern limit of the "Great Lakes Basin" of Part VI_A, i.e., some six miles downstream from Snell lock where the pilots had changed over

up to then and which, in fact, they continued to do with resultant problems for which adequate legal solutions have not yet been found (vide Part IV, pp. 899 and ff., Recommendation No. 3, pp. 1009-10). The payment of pilotage dues in the new Kingston District remained non-compulsory. The Kingston District General By-law, which was confirmed the same day the District was created, contained the same provisions as the General By-law of the former District. It provided for licensing requirements and procedure and for the direction of the pilotage service by the Pilotage Authority through its local representative, the Supervisor, by means of a despatching system based on a regular tour de rôle. The pilots' remuneration comprised the full amount of the dues their services had earned. There was no pension fund and no deduction of any kind was authorized. The dues for trips were based on draught and registered tonnage (\$5.00 per foot draught plus $\frac{1}{2}\text{¢}$ per ton registered tonnage) with a minimum of \$87.50. In addition, for trips of unusual duration there was a charge of \$5.00 for each hour or part thereof over fourteen hours to a maximum of \$25.00 per calendar day. The dues were collected by the District Supervisor and, according to the By-law, were supposed to be remitted directly to the pilot who had earned them. In fact, these provisions were only a temporary measure pending the proclamation of Part VIA C.S.A., which had been assented to August 1, 1960. Part VIA was proclaimed May 1, 1961, and, on the same date, the territory of the Kingston Pilotage District became the Canadian part of Great Lakes District No. 1 and subject to the Great Lakes Pilotage Regulations. On the same day, the Kingston Pilotage District General By-law was substantially amended in a vain effort to reconcile the Pilotage District organization of Part VI C.S.A. with the overriding provisions of Part VIA C.S.A. and the new organizational requirements (vide pp. 156 and ff.).

Following the division of their former District, the Kingston pilots seceded from their former Corporation and formed their own with the name *Corporation of the Upper St. Lawrence Pilots* under letters patent issued August 21, 1961. The Corporation of the St. Lawrence-Kingston-Ottawa Pilots, which then comprised only the Cornwall pilots, changed its name to *Corporation of the St. Lawrence River and Seaway Pilots* (Part I, p. 87, and Part IV, p. 939).

A number of years prior to the opening of the Seaway, the main problem in the Great Lakes system west of Kingston was control of the Sailing Masters to ensure their availability. Under the free enterprise system, the regular lines accomplished this by employing some of them on a seasonal basis. However, vessels which made only an occasional voyage were liable to be delayed because Sailing Masters were not readily available at Kingston and, since this problem affected ocean-going vessels almost exclusively, the Shipping Federation (to which most of them belonged) took the initiative to arrange the necessary organization. The Department of Transport had

declined to assume this responsibility on the ground that it was not in a position to take action because under Part VI C.S.A. it was not possible to create Pilotage Districts unless they consisted entirely of Canadian waters. The Department extended its cooperation by allowing the Shipping Federation to use its despatching facilities at Kingston. When the need for Government control—over not only the availability of pilots but also their professional competency—became necessary following the opening of the Seaway, international agreements between the United States and Canada were required to achieve these controls through the device of parallel, reciprocal legislation.

In the early days, Sailing Masters were mostly retired or semi-retired former Masters of lake vessels (although, since Part VI C.S.A. did not apply, anyone, irrespective of his qualifications, could act as pilot if he could find employment. As ocean-going traffic increased on the Great Lakes, the Shipping Federation, in order to provide a sufficient number of Sailing Masters, had to enrol in its organization younger men who were trained by experienced foreign-going Masters with extensive knowledge of the Great Lakes system. In April 1956, these Sailing Masters grouped themselves into a professional organization under the name *The Great Lakes Pilots Association of Canada*. In 1957, it numbered 50 Sailing Masters, all Canadians. Their remuneration was \$25 per day plus \$2.50 for expenses.

The Shipping Federation of Canada, which was in charge of despatching Sailing Masters for vessels without contracts for such assistance, refused to accept U.S. Sailing Masters on its despatching list, despite repeated requests from the International Organization of Masters, Mates and Pilots, Inc., of the United States which represented them. Early in 1957, the international organization with which the Great Lakes Pilots Association of Canada had affiliated began negotiations with the Shipping Federation of Canada on the subject of the remuneration of Sailing Masters. However, shortly afterwards, the Great Lakes Pilots Association took charge of the negotiations.

Due to the sharp increase in ocean-going traffic, the Sailing Masters found themselves employed full time during the season of navigation. Previously, on account of the existence of the *contract pilot system*, great difficulties had been experienced by the Shipping Federation in the operation of the tour de rôle (these difficulties were of the same nature as those in the other St. Lawrence Pilotage Districts on account of the existence of the special pilot system, vide Part IV, pp. 251 and ff.). Approximately 60 per cent of the Sailing Masters were contract pilots and the remainder were on tour de rôle. The Shipping Federation considered the contract system unsatisfactory on the ground that despatching would be more efficient if all pilots were on tour de rôle and were assigned to ships rather than to com-

panies. At the negotiations, the *tour de rôle* system was readily favoured by the Sailing Masters' Association and the contract system was abolished. The remuneration was raised to \$40 per day plus \$2.50 per day for expenses.

In the course of negotiations, the Association had submitted that it was not satisfied with the despatching system the Federation had operated and requested that it be taken over and operated by the Department of Transport through the Kingston District Superintendent of Pilots, failing which it warned that it would take over. The ground for this move was to ensure that as far as possible all Sailing Masters had equal service. At this juncture, the Department partly reversed its non-involvement policy by agreeing to take over despatching as an unofficial service to Sailing Masters but refused to be otherwise involved in their pilotage service. A pertinent extract of the instructions issued by the Department reads as follows (Ex. 1219):

"It was decided as a matter of Departmental policy, owing to the desirability of our having an official record of the experience of sailing masters employed on ocean ships plying the Great Lakes, to have these sailing masters assigned or despatched to their ships by the Kingston office. The sailing masters themselves had from time to time requested that this be done and this request was more recently supported by the Shipping Federation. While the sailing masters are not licensed pilots, there being no pilotage district of the Great Lakes established under the Canada Shipping Act, they do fall within the definition of a pilot as given in that Act. Accordingly, it was decided, as stated above, to have them despatched through our Kingston office on the understanding that the Shipping Federation would be responsible for the compilation of the list of sailing masters and for the order in which they would be despatched. That is, the Department would take no responsibility for competency of the sailing masters or for disciplinary measures when needed."

Throughout 1957, the Shipping Federation continued control (except for despatching) of the Sailing Masters who, for all practical purposes, were treated as its employees. Applications to become Sailing Masters had to be addressed to the Federation, which made the selection. Their remuneration was fixed through negotiations between the Great Lakes Pilots Association and the Federation. In addition, the Federation looked after the clerical work and billed vessels, members or not, for the pilots' earnings, which it remitted to them when collected. It made no deduction for administrative expenses but levied on each vessel a \$5.00 administrative charge per assignment. The Sailing Masters enjoyed the benefits of unemployment insurance.

At the end of the 1957 season, the International Association of Masters, Mates and Pilots succeeded in obtaining the acceptance of four U.S. Sailing Masters for the roster.

In November 1957, the Sailing Masters refused to cross the picket lines set up by the St. Lawrence-Kingston-Ottawa pilots who were on strike at the time (Part IV, p. 886). Since Kingston was the main boarding area for Sailing Masters, the practical effect was to deprive ocean-going vessels of their services.

Negotiations had by then commenced between the United States and Canada for the solution of the expected pilotage problems in the Great Lakes system after the opening of the Seaway.

In October 1955, an informal conference was held at Cleveland on the subject of Great Lakes pilotage. It was composed of representatives of the United States Coast Guard, the various shipping firms trading on the Great Lakes and pilot organizations. They had agreed on important concepts: that safety of navigation on the Great Lakes was of the utmost importance; that legislative action should be taken at the United States federal level rather than the states level; that any proposed pilotage legislation should not apply to lake vessels; that radiotelephone equipment was essential for safe navigation on the Great Lakes.

In 1957, a bill (Bill H.R. 7515, Ex. 1220), which was intended to make the use of Sailing Masters compulsory for all ocean vessels in the United States waters of the Great Lakes system, was introduced in the United States Congress. In October 1957, the Congressional Information Bureau issued a release stating that the proposed legislation would require pilots on board ships of 300 GRT and over. It was explained that the Bill would give legislative effect to the practice followed by ocean vessels which had been in existence for many years. The Shipping Federation opposed the legislation, which was intended to perpetuate and enlarge the Sailing Master system, on the grounds that it would actually result in a shortage of Sailing Masters and that the system would no longer meet pilotage needs after the opening of the Seaway. It urged that, instead, organized pilotage be limited to the restricted areas of the connecting channels of the Great Lakes system which, in their view, were the only areas where pilotage was necessary. According to statistics prepared by the Shipping Federation of Canada for 1957, the average duration of a trip for ocean-going vessels into the Lakes was 23 days, of which 52.3 per cent were spent in port and 47.7 per cent under way. The Shipping Federation felt that it was a waste of the pilots' time to continue to despatch them on a long trip basis, to require them to remain idle in ports where ships berthed and even to be on board in the open waters of the Lakes. It felt that such wastage of the pilots' time could be avoided by modifying the organization so that organized pilotage would be limited to areas where it was necessary.

The Shipping Federation presented a brief to the Minister of Transport stating its reasons for its opposition to the United States legislation. It urged the Canadian Government to accept its views, make appropriate representations to the United States Government and show its position immediately by creating a Pilotage District under Part VI C.S.A. between Port Weller and Sarnia. The Shipping Federation also appeared in January 1958 at an official hearing held in the United States at which it established its position on the question of the proposed United States legislation on the Great Lakes.

In a letter dated March 14, 1958, from the Director of Marine Services, the Shipping Federation was informed that its request for the creation of a Port Weller-Sarnia Pilotage District was refused, but that the Government would not object if the Federation decided to establish and operate its own despatching system at Port Weller and Sarnia and institute immediately the practice of employing Sailing Masters only between those two points. The Shipping Federation was also informed that the Government intended to send an *aide-mémoire* through the Department of External Affairs to the United States Government in opposition to the proposed United States legislation. This first *aide-mémoire* pertaining to pilotage legislation on the Great Lakes was, in fact, delivered on March 20, 1958 (Ex. 1396). The Canadian Government pointed out, *inter alia*, that it was "not essential in the interest of safety that vessels carry accredited pilots during passage of the open waters of the Great Lakes". In the opinion of the Government of Canada, "interest of safety would be adequately served by requiring vessels to carry pilots in only the restricted waters" so designated by both Governments; that compulsory pilotage throughout the Great Lakes, including the open waters, was unnecessarily severe and would result in unfair economic hardship.

Bill H. R. 7515, which had passed the House of Representatives, was defeated in the United States Senate largely because of the Canadian objection.

The Shipping Federation proceeded with its proposal to limit pilotage only to the confined waters of the Great Lakes system. The Department of Transport had declined to create a Pilotage District under Part VI C.S.A. for all the waters of the Great Lakes system, or even for the section between Port Weller and Sarnia, the latter on account of the legal difficulties arising from the fact that the Detroit River and the St. Clair River are boundary waters and, therefore, an effective Pilotage District could not be created under the present Canadian legislation. However, the Department viewed the proposal favourably. The Great Lakes Pilots Association and the International Organization of Masters, Mates and Pilots, Inc., to whom the proposal was communicated during a meeting held March 31, 1958, opposed it on the basis that it would jeopardize safety of navigation on the open waters of the Great Lakes. Among the other matters under discussion was a request from the Sailing Masters for an increase in their daily rates for the 1958 season from \$42.50 to \$75.00, plus a charge of \$8.50 per foot draught in the Welland Canal, as well as other benefits.

Notwithstanding the rejection of the proposal by the Sailing Masters, the Shipping Federation went ahead with its plan and set up a pilotage area between Port Weller and Sarnia. The formal announcement of the new arrangements, which was made April 14, was met by a refusal on the part of the Sailing Masters and they went on strike.

In a telegram dated April 16, 1958, the president of the Great Lakes Association stated that any foreign vessel proceeding on the open waters of Lake Ontario without a pilot was a danger to the safety of navigation and that his Association would take any action necessary to prevent it.

On the same day, the Shipping Federation, by-passing the Associations, sent a personal telegram to all eligible Sailing Masters who had served the previous year, advising them that the former Sailing Master system had been discontinued and that it would be replaced by a system of pilotage in restricted areas. The Sailing Masters were informed that application to serve as pilot under the new arrangements would have to be made and that preference would be given to the Sailing Masters on the previous year's roster (Ex. 1045). Of the fifty Sailing Masters on the roster that year, seventeen were not invited, mostly because they were over age.

Two days later, after receiving only one application, the Shipping Federation sent another telegram to the Sailing Masters stating that the former Sailing Master system would not be resumed and that it would prefer giving priority for pilot appointments to those who had served as Sailing Masters in the past, but it could not delay implementation of the new system because the navigation season was about to open. It warned that, if applications were not filed promptly, other suitable applicants would then be hired.

About the same time, the president of the International Organization of Masters, Mates and Pilots, Inc., threatened to demand that two pilots be required at the same time on board each vessel, one U.S. pilot and one Canadian pilot, if the Shipping Federation did not revert to the Sailing Master system.

Since very few Sailing Masters applied, the Shipping Federation advertised for pilot applicants in all the principal lake ports, both United States and Canadian, and sent personal telegrams to individual Masters and mates of Canadian lake ships. The president of the U.S. Association then issued a circular letter stating that the stand taken by the Shipping Federation was a lock-out, and called for "economic action" to protect pilotage and "eliminate the dangers to the safety" of navigation. Both Sailing Master Associations responded and the economic action took the form of action resembling a strike. Most Sailing Masters refused to apply for pilotage employment and picketing action was taken against the Shipping Federation and the vessels of its members. This picketing by members of the Great Lakes Pilots Association commenced at Kingston and had the indirect result of depriving vessels downbound from Kingston of pilotage services, since the Kingston pilots respected the picket lines as a return gesture for the support they had had from the Sailing Masters during their strike the year before. Picketing by members of the International Organization of Masters, Mates and Pilots, Inc., also commenced in U.S. ports, particularly Chicago and Milwaukee.

The Shipping Federation had, by then, organized despatching in Port Weller. By the end of April, nine pilots had been hired. The despatching office as well as the pilots were subjected to constant harassment by members of the Great Lakes Pilots Association who, *inter alia*, followed the ships along the canal "screaming" through loudspeakers at vessels moving in the canal. The despatcher's house was also picketed.

According to the evidence received, all Sailing Masters did not approve of the activities along the Welland Canal, and some felt that there should have been a meeting with the shipowners.

On May 2, an interim injunction against picketing by Sailing Masters was obtained at Kingston but it was not obeyed. The Kingston pilots resumed boarding downbound vessels at Kingston after the granting on May 12 of an interlocutory injunction restraining any interference with service in the Kingston Pilotage District. In the United States, the National Labour Relations Board, on the ground of unfair labour practices, namely, a secondary boycott, obtained a restraining order against the International Organization of Masters, Mates and Pilots, Inc., and the International Brotherhood of Longshoremen from interfering with the operation of overseas vessels. Picketing by the Canadian Association, except as restrained by the injunction, continued for a while.

During April, May and June, the Shipping Federation had great difficulty supplying pilots for their ships; some pilots sailed for only two or three days and left their employment. The Shipping Federation ran into difficulty with the application of the Immigration Act when, in the absence of Canadian applicants in sufficient number, they employed several United States citizens as pilots. According to the Immigration Act, non-immigrants could not be admitted to work except in positions for which no resident of Canada was available, and the Department of Citizenship and Immigration apparently contended that this fact had not been established. The pilot vessel service established by the Federation at Sarnia ran into difficulty with the Customs authorities and a pilot vessel was seized by the R.C.M.P. on the complaint that the boatman was not clearing through Customs each time the pilot was disembarked. Eventually, this matter was settled. In May, one U.S. pilot resigned, mainly because he and his family had allegedly received threats over the telephone.

By May 15, 1958, 18 pilots had joined the roster. From then on, as additional pilots were recruited, it became easier to provide the required pilotage services and fewer ships proceeded through the area without pilots. The difficulties with the Immigration Department were finally settled, the U.S. pilots being given the usual exemptions. By the end of August 1958, there were 30 pilots, including the Port Weller despatcher, Capt. L. H. Crawford, of whom 16 were former Sailing Masters. Then other Sailing

Masters who had by then decided to join were placed on a waiting list as the number in service was sufficient to meet requirements.

The Shipping Federation employed the pilots at the rate of \$40 for each day they were available, with a guaranteed minimum of \$8,000 for the season. Sick leave was guaranteed for two weeks at full rate, and half rate thereafter for an indefinite period. Travelling expenses were reimbursed. Discipline over pilots was exercised by the Shipping Federation from its Montreal office under the authority it derived from the employment contract. It is reported that, *inter alia*, one pilot was dismissed because he was found inebriated on two occasions while on duty.

The pilots were instructed that, as soon as their vessel arrived in port, they should ascertain and report the expected length of its stay. If the vessel was to be in port for more than 24 hours, the pilot was automatically taken off and assigned elsewhere.

The pilotage fees charged by the Shipping Federation were on the basis of a flat rate for given trips, e.g., \$200 for a transit between Port Weller and Sarnia with a pilot vessel charge of \$12.50 for boarding or disembarking at Sarnia.

At the end of the 1958 season, the operations showed a surplus of about \$28,000 after paying pilots and all expenses. It was intended to place this money in a reserve fund and reduce tariffs for 1959, but this was not done because the Department of Transport finally took over the responsibility for pilotage operations.

On August 25, 1958, the Shipping Federation had asked the Department of Transport to take over the service, which by then was fully organized and working efficiently. The Department of Transport had not taken a position at that time but had undertaken a study of pilotage operations. The conclusions of the survey may be summarized:

- (i) the waters between Montreal and Kingston, the Welland Canal, Detroit River, Lake St. Clair and St. Clair River, St. Marys River and the Sault locks, and the Little Current area, were considered essentially as pilotage waters with respect to foreign-going vessels;
- (ii) pilotage was not essential in the open waters of the Lakes or in Toronto and Hamilton;
- (iii) certain points would require emphasis such as Rules of the Road for the Great Lakes, recommended courses and the use of radio-telephone;
- (iv) the equipment of all vessels entering the Seaway on their first trip should be inspected and the officers examined on local knowledge.

In the autumn of 1958, the International Organization of Masters, Mates and Pilots, Inc., endeavoured to set up its own pilotage service on the Great Lakes but was not successful. The Great Lakes Pilots Association also made a similar attempt. In early 1959, the Association sent a circular letter to various shipowners in Europe offering their services as pilots on the Great Lakes. It appears that this proposal met with very little success.

The Hamilton and Toronto Harbour Authorities were urged by the Shipping Federation to set up their own port pilotage organization. The Hamilton Harbour Commissioners immediately made the necessary arrangements and the Toronto Harbour Commissioners did likewise three years later. These port pilotage organizations were only services placed at the disposal of vessels and pilotage was not made in any way compulsory. With the enactment of Part VIA C.S.A. in 1960, these port pilotage organizations were to create problems which have not yet been solved officially.

In the meantime, discussions were being held between the Canadian and United States Governments on proposed pilotage legislation. Towards the end of the year, a policy had been drawn up by the Department of Transport with regard to the required Canadian legislation and this was detailed in Bill S-3 which was introduced in the Canadian Senate in January 1957 as amendments to the Canada Shipping Act. At that time, not only had no agreement been reached between Canada and the United States on joint policy but no progress had been made. Simultaneously Bill H. R. 57 (Ex. 1103) was introduced in the House of Representatives in the United States Congress. It was similar in terms to Bill H. R. 7515 which had been defeated earlier.

The Great Lakes pilotage provisions of Bill S-3 were aimed at establishing concurrently with similar legislation in the United States a system of compulsory pilotage as was later introduced through Part VIA C.S.A. The Bill was met by strong opposition, especially from the St. Lawrence Districts' pilots and the shipping interests. This Bill, in addition to *ad hoc* provisions concerning Great Lakes pilotage, contained provisions of a general nature in the form of amendments aimed at extending the field of legislation that could be dealt with by regulations under Part VI. The pilots of the St. Lawrence River Districts saw a threat to their pilotage organization and their so-called acquired rights in the wide powers it proposed to give the Governor in Council and the Pilotage Authority over the formation, abrogation and modification of Pilotage Districts and the extension of exemptions from compulsory pilotage (vide Part I, p. 224, and Part IV, p. 210).

The Shipping Federation of Canada held that the bill did not meet the pilotage requirements of the Great Lakes system, and that it contained only punitive measures. They urged that the only solution was complete agreement between the two Governments on setting up an efficient pilotage

service, either under an international authority or by dividing the Great Lakes into two spheres of influence (Proceedings of the Senate Committee, February 10, 1959, pp. 63 and 67).

Bill S-3 passed the Canadian Senate but, when it came before the House of Commons for second reading April 7, 1959, the Government decided to suspend debate in order to make another attempt at reaching agreement with the United States Government.

Bill H.R. 57 met the same fate before the United States Congress. The Canadian Government reiterated its opposition in the second *aide-mémoire* dated May 19, 1959 (Ex. 1396) in which, after outlining its policy with respect to pilotage on the Great Lakes (which had already been formulated in Bill S-3), said in part:

"H.R. 57 now before the United States Congress would require that a pilot equivalent to an "A" certificate pilot in Canada must be on board all vessels navigating in the United States waters of the Great Lakes. This requirement is not consistent in concept with the pilotage regime envisaged for Canadian waters. Discussions have taken place on a number of occasions aimed at reconciling the draft provisions of the Canadian and United States legislation. On March 20, 1958, a Canadian aide-mémoire was delivered to the State Department setting forth the views of the Canadian Government on the pilotage legislation then before the United States Congress (H.R. 7515). The main United States requirements for safety are believed to have been met by the "B" certificate system outlined above."

In the course of discussions in the United States Committee on Bill H.R. 57, a number of amendments were suggested aimed at establishing an international Great Lakes Pilotage Commission, but different ideas were expressed as to its functions and powers.

One of the proposed amendments—by the Shipping Federation of Canada—envisaged a supranational authority vested by both Governments with the necessary powers "to investigate, prescribe and administer" a regulated and fully coordinated system of pilotage on the Great Lakes. This was a bold departure from the methods then being considered and, while it raised a good deal of interest at the time, the proposal was not implemented. It may be surmised that the validity of the concept as well as the limited time available to work out the necessary legislative arrangements, including possible treaty negotiations and the enactment of enabling legislation, presented too great obstacles at the time (the Seaway was due to open that year). Instead, the House of Representatives Committee on Merchant Marine and Fisheries favoured other amendments which, while not altering the concept of compulsory pilotage in open waters, provided for the creation of a joint Canada-U.S.A. commission charged with studying compulsory pilotage on the Great Lakes and making recommendations to the Canadian and United States Governments.

The Canadian Government did not believe that negotiations under such auspices would be acceptable and expressed its views in a third *aide-mémoire* dated September 11, 1959 (Ex. 1396).

"While not opposing the creation of an International Pilotage Commission or authority, the Canadian Government considers that the membership of any such body should be more broadly based than that envisaged in the recent amendment to HR 57 and that in any event, if created, it should be empowered to establish and operate or control the operations of a pilotage system for the Great Lakes and its inter-connecting channels which would take into account matters affecting shipping on both sides of the border as well as those affecting the trained pilotage personnel in the two countries.

Although the exact status of the various amendments to HR 57 is not known to the Canadian Government, it appears that the most recent amendment would have the effect of predetermining a number of issues before any Joint Pilotage Commission or authority can be established. The Canadian Government would be unable to participate in a commission required to carry out its duties under such circumstances and therefore, as indicated in its earlier *aide-mémoire* of May 26, would welcome the opportunity to have further discussions on this matter with the appropriate United States authorities."

In addition to the Canadian objections, the Governments of Sweden, Ireland, Italy, the United Kingdom, Norway, Denmark, the Netherlands and West Germany expressed their opposition to the provisions which called for pilots on the open waters of the Great Lakes as being an additional expense and not necessary for purposes of safety (Proceedings on H.R. 57, p. 172; Ex. 1103).

Because of this opposition, H.R. 57 was not passed by the House of Representatives. Instead, a request was made to the State Department that consultation be held again with the responsible Canadian authorities to the end that a Bill acceptable to the Governments of both countries be developed. Thus, the United States authorities held further discussions with representatives of the Canadian Government which finally resulted in a general agreement on separate but compatible legislation as well as other requirements for pilotage on the Great Lakes.

While the question of legislation was being debated, the Department of Transport applied the Canadian Government policy of pilotage services to be provided only in the confined sectors of the Great Lakes system and not in the open waters of the Lakes. In April 1959, it was decided that the Department of Transport would take over responsibility for administering the Port Weller-Sarnia pilotage area. Advertisements for pilot candidates were published in the press. At first, only a few of the pilots who had previously served were accepted. However, all former pilots who wanted to serve under the Department of Transport were eventually engaged.

In July 1959, the Shipping Federation assisted in the formation of a third pilotage area consisting of the connecting channel between Lake Huron and Lake Superior. A number of United States pilots serving in that area were grouped under the name of the "Lake Superior Pilots Association".

At the same time, the Shipping Federation further promoted the establishment of local port pilotage in ports situated on the open waters of the Lakes, e.g., it organized local port pilotage at the twin ports of Fort William-Port Arthur (now Thunder Bay) and also prevailed upon the agent in Duluth to be responsible for pilotage there.

When the Shipping Federation was operating the Port Weller-Sarnia pilotage section, it had made arrangements to have all ocean vessels proceeding into the Lakes furnished at Montreal with the required charts, Notices to Mariners, a copy of the Rules of the Road for the Great Lakes with a poster illustrating the differences between International Rules of the Road and the Rules of the Road for the Great Lakes, as well as copies of the various circulars it had issued for the guidance of Masters proceeding up the Lakes. On passing Port Weller, a further check was made by the area despatcher, Capt. L. H. Crawford. This inspection differed from the Seaway inspection carried out at Longue-Pointe which dealt with special equipment, such as landing booms and radiotelephones. When the Department of Transport took over administration of the Port Weller-Sarnia pilotage area, it adopted the Shipping Federation's inspection procedure but had to discontinue it late in 1959, apparently on account of objections by the United States authorities, who felt that the Department of Transport was invading the field of regulating navigation in the Great Lakes system. The inspection procedure was resumed in 1960.

Following the rejection of Bill H.R. 57, a number of meetings were held between representatives of both countries. In the discussions, the officers of the Department of Transport particularly stressed that the requirement of one or more previous trips on the Lakes as a condition for granting an exemption to compulsory pilotage was neither necessary nor logical since navigation was in open waters and, in any event, the employment of pilots should be made compulsory only in the confined waters of the system. The problem of semantics arising from the different meaning given to the term "*pilot*" in the United States legislation continued to create difficulties.

Through compromises, an agreement was reached on the substance of the required parallel legislation. The results of these discussions are indicated in an exchange of *aide-mémoire*, both dated February 19, 1960, between the United States and Canadian Governments (Ex. 1396). Owing to the nature of the undertaking, both texts are reproduced hereunder.

"In discussions of Great Lakes pilotage between United States and Canadian officials following the receipt of the Canadian Aide-Mémoire of September 11, 1959, the Canadian officials were informed of the provisions of a proposed draft bill on the subject which was prepared by representatives of interested agencies of the Government of the United States. The principal purposes of the proposed bill would be to establish certain pilotage requirements for the navigation of

United States waters of Great Lakes and St. Lawrence River by vessels operating on ocean routes to and from Great Lakes, and to provide a basis for a regulated system of pilotage to meet those requirements.

Provision is made for coordination of this pilotage system with a Canadian system on the basis of reciprocal recognition of and equitable participation by United States and Canadian pilots in the pilotage of the vessels to which the bill would be applicable. These pilots would be registered by an appropriate agency of their respective countries, and vessels to which the bill is applicable would be required to have registered pilots in their service for the navigation of designated United States waters. It is the understanding of the United States Government that Canadian waters will also be designated in which the services of registered pilots will be required.

In undesignated waters of Great Lakes, the vessels to which the proposed bill would be applicable would be required to have on board either a registered pilot or an officer of their regular complement who would be qualified for the navigation of the undesignated waters and licensed either by United States Coast Guard or the appropriate agency of Canada.

As a result of the above-mentioned discussions, the Canadian representatives indicated that their Government would be prepared to recommend to Parliament that legislation be adopted permitting coordination on the above indicated basis, if United States enacted legislation along the lines of the proposed draft bill. It is the United States Government's understanding that provision would be made to restrict the registration of Canadian pilots to persons, other than members of the regular complement of a vessel, who hold a masters certificate or equivalent license, unlimited as to tonnage, issued by the Department of Transport to authorise navigation of Great Lakes and pilotage services on routes specified therein.

The term "equivalent license" as used in the proposed United States draft bill means a license issued to a St. Lawrence River pilot to authorise the navigation of those portions of the river specified therein. In this connection Canadian officials explained that St. Lawrence River pilots are specially trained for pilotage in the districts for which they are licensed, and that they are not required to obtain a masters certificate, although some do hold such a certificate. Under the proposed coordinated arrangements, Canada would register the holder of a St. Lawrence River pilots license solely for pilotage service on that river.

The Canadian officials further indicated that the Canadian Government would include in any proposed legislation such provisions as might be considered necessary to authorise the Department of Transport to issue certificates qualifying for the navigation of the "open" (i.e., undesignated) waters of Great Lakes those officers of the regular complements of ocean vessels who meet the following requirements:

- (1) Hold an appropriate certificate of competency as master, valid for voyages in any part of the world and issued or recognized by the country in which the ship is registered.
- (2) Have the experience of at least two round trips, within the preceding 2 years, in the "open" or undesignated waters of Great Lakes where the vessel will be operating.
- (3) Possess a working knowledge of Great Lakes rules of the road as evidenced by exam.
- (4) Have proficiency in the English language, to be tested also by exam, sufficient to make effective use of the radiotelephone.
- (5) Have knowledge of the practice of following separate upbound and downbound courses on Great Lakes, giving due regard to the suitability of such courses for deep draft vessels.

The substance of the proposed draft bill which was the subject of the above-mentioned discussions is now embodied in a bill introduced in the Senate as

S 3019. The Government of the United States of America would appreciate being informed as to the accuracy and applicability of the foregoing understanding of the intentions of the Canadian Government with respect to S 3019."

Canadian Aide-Mémoire

"An Aide-Mémoire presented to the Canadian Embassy in Washington, by the Department of State on February 19, 1960, outlines the manner in which Canadian and United States legislation aimed at establishing certain pilotage requirements for the navigation of the waters of the Great Lakes and the St. Lawrence River could be co-ordinated if the legislative proposals contained in a Bill known as S-3019 are approved by the United States Congress. In the event that that Bill does become law in the United States, it is the intention of the Canadian Government to submit to the Canadian Parliament, legislative proposals which would effect just such a co-ordinated pilotage regime in the Great Lakes in the manner indicated in the United States Aide-Mémoire."

The United States Great Lakes Pilotage Bill S.3019, which had been introduced in the Senate in February 1960, was eventually approved by Congress and signed by the President June 30, 1960, to become effective at the beginning of the 1961 season. This is the legislation now in force in the United States.

In June 1960, the Canadian Government introduced Bill C-80 in the House of Commons. The Bill amended the Canada Shipping Act by adding a new Part VIA under the heading "Great Lakes Pilotage" to implement in general terms the agreement reached. Subject to two amendments concerning exemptions and reciprocity, the Bill passed the House and the Senate and was assented to July 26, 1960. The Act, now Part VIA C.S.A. and an amendment to Part VI C.S.A. by the addition of Section 356A, came into force when proclaimed May 1, 1961.

These two United States and Canadian Acts have not been modified since, except indirectly in the case of the United States Act through the Department of Transportation Act when all the functions, powers and duties of the Secretary of Commerce under the United States Great Lakes Pilotage Act of 1960 were transferred to, and vested in, the Secretary of the Department of Transportation (vide foot note p. 9). For a comparative analysis of the United States and Canadian legislations and the regulations made thereunder, reference is made to pp. 3-47.

Following the enactment of the parallel statutory legislation, officials of the United States and Canada discussed the possibility of coordinating the two official pilotage systems and the United States authorities sought written clarification of certain points relating to Part VIA C.S.A. Accordingly, Canada in a fifth *aide-mémoire*, dated November 30, 1960 (Ex. 1396), confirmed that Canadian and United States Great Lakes vessels were exempt from pilotage requirements and that the Government also intended to exempt by administrative decision Canadian and United States public vessels. The Canadian Government indicated further that the provisions of Part VIA C.S.A. concerning the issuance of certificates of qualification

for navigation in the undesignated waters of the Great Lakes applied only to the Master or other officer of the regular complement of the vessel concerned.

The administrative exemptions to be granted by Canada for United States public vessels were further clarified through an exchange of *aide-mémoire* after the Department of Transport had reported that two United States naval vessels had navigated Canadian waters in the Great Lakes system without pilots, while another United States naval vessel had navigated such waters with a pilot who was not registered. In a note dated September 1962, the United States Government reminded the Canadian Government of its undertaking to grant administrative exemptions to United States public vessels and requested that a covering blanket exemption for public vessels of the United States be issued. This was done September 27, 1962 (vide p. 32) and the United States Government was formally informed by a memorandum dated October 12, 1962 (Ex. 1396).

On December 22, 1960, the President of the United States issued a proclamation defining the three sectors of the United States waters of the system which were to be designated waters (vide p. 40). The definition of the designated waters sectors was completed through provisions contained in the Great Lakes Pilotage Regulations issued by the Governor in Council April 27, 1961, which defined the designated sectors of Canadian waters (pp. 12-15).

In the meantime, the United States Department of Commerce, which was responsible for implementing the United States Great Lakes Pilotage Act, established the necessary organization before the Act came into force. Department Order No. 169 dated October 25, 1960, entitled "Great Lakes Pilotage Administration, Establishment, Functions and Responsibilities" established a constituent organization unit, the "Great Lakes Pilotage Administration", to be headed by an "Administrator" to whom the Secretary re-delegated most of his powers and responsibilities, including his regulation-making power as authorized under the United States statutes (pp. 37-38).

In January 1961, the Shipping Federation of Canada made representations to the United States Pilotage Administrator on the occasion of the hearings held concerning the pilotage regulations he proposed to adopt. The Shipping Federation's recommendations, which were later repeated to this Commission, were to the effect that:

- (a) pilots registered for service in restricted waters should not be allowed to pilot outside the restricted waters of their District;
- (b) when a pilot was required in undesignated waters because a vessel carried no officer holding a "B" certificate, pilotage should be performed by part-time, retired or semi-retired pilots so as not to disrupt operations in designated waters.

The United States Great Lakes Pilotage Regulations were promulgated January 27, 1961. They have since been modified and superseded by new regulations (p. 38, Ex. 1028).

Negotiations ensued between the representatives of both Governments on those matters specified in the United States Pilotage Act (pp. 37 and 39) which required coordination of regulations and organization. The results of these negotiations were confirmed in a formal document called "Memorandum of Arrangements" dated May 1, 1961, and signed by the heads of both Departments, the Minister of Transport of Canada and the Secretary of Commerce of the United States (Ex. 1400). The Memorandum was to be amended from time to time as required. The Memorandum, and later each of its amendments, was formally recognized by each Government through a formal exchange of diplomatic notes.

When the first Memorandum of Arrangements was concluded May 1, 1961, it was mutually agreed that it would be revised in the light of experience to provide more efficient and effective pilotage services and promote uniformity of administration. In fact, the original Memorandum was subsequently amended three times effective October 15, 1962, April 29, 1963, and July 29, 1963. On the basis of five years of experience, on June 29, 1966, the Secretary of Commerce of the United States and the Minister of Transport of Canada entered into a new Memorandum of Arrangements which superseded the original Memorandum of May 1, 1961. This second Memorandum, which had been amended twice, October 6, 1967, and April 25, 1968, was superseded by a third Memorandum effective August 1, 1969, and it, in turn, was replaced as of July 7, 1970, by the Memorandum now in effect, as amended effective Aug. 12, 1970.

The 1961 Memorandum dealt with the various subject-matters on which an agreement between the two countries had to be reached and where the organization for the provision of services had to be coordinated. It contained a number of transitory provisions which were later deleted when they had outlived their purpose. In *résumé*, the main features of the arrangements are:

- (a) *Participation in Pilotage Services.* There was to be full sharing of numbers by U.S. and Canadian pilots per District, parity to be achieved not later than 1965. Since Canadian pilots outnumbered U.S. pilots 72 to 34, the vacancies in each District were to be filled as they occurred by U.S. appointees, with the exception of District No. 1 where there were 24 Kingston pilots of whom only 20 were authorized to act as registered pilots, priority then being given to the four Canadian pilots in excess before parity was achieved.

- (b) *Co-ordination of Pilotage Pools.* Details of the sharing of administrative responsibility for the provision of services were established: Canadian pools were made responsible for operating the despatching facilities at Cornwall and Port Weller and United States pools for Cape Vincent, Port Huron and Sault Ste. Marie, the only despatching facility for District No. 3. These facilities were responsible for despatching pilots on all assignments originating from their locality (for the whole of District No. 3 in the case of the Sault Ste. Marie office). Pilotage requirements for an intermediate point on the open waters of Lakes Ontario, Huron or Michigan could be filled by securing a pilot from the despatching office of any contiguous Districts. Despatching was to be effected on the basis of a straight tour de rôle without regard for nationality. If a pilotage assignment was completed in another District, the despatching office of that District was to give the pilot a return assignment to his own District.
- (c) *Accounting.* Billing and collecting of fees were the responsibility of the despatching office which made the assignment. At first, billing was to be in the currency of the nationality of the pool but this was later changed to the nationality of the pilot. Each pool was to pay its operating costs out of the pilotage earnings so collected, the balance being divided between the United States pool and the Canadian pool for the District on the basis of the availability of the pilots of each pool. When a pilot of another District was despatched, the billing remained the responsibility of the despatching office, which retained 25% as part of its earnings, the remaining 75% being paid to the pool to which the pilot belonged, but this rule was deleted in 1963. There were provisions to cover accounting, payments and audits.
- (d) *Rates, Charges and Conditions.* The Memorandum sets out various pilotage charges that had been agreed upon, i.e., on the basis of flat rates for given trips, the amount being the same whether the charge is United States or Canadian currency. Provisions are made for cancellation and for detention *en route* for causes other than ice, weather or traffic delay or when the pilot remains on board for the convenience of the vessel. The rate for services rendered in undesignated waters is on the basis of a per hour rate plus berthing and unberthing charges.
- (e) *Miscellaneous.* The Secretary of Commerce of the United States and the Minister of Transport of Canada have agreed to report to one another any violation of their pilotage regulations in their waters by a pilot of the other country.

All these transitory provisions aimed at achieving parity of participation were omitted in the 1966 Memorandum of Arrangements. It was further simplified when amended in 1967 and 1968, the provisions being couched in general terms and the previous details omitted. The 1968 amendment provided, *inter alia*, for a change in the definition of the designated waters of Districts Nos. 2 and 3 (pp. 14–16). The preamble announced that the rates structure, which does not take into consideration size of vessel or, in some cases, length of voyage, was to be replaced by a new structure which more effectively measures the pilots' workload. This new structure was to be developed and made effective prior to the 1970 shipping season. The 1969 Memorandum consolidated the previous one, as amended, and provided for temporary rate increases pending the adoption of the proposed new rate structure, and for the establishment of consolidated billing, collection and accounting services. The 1970 Memorandum, which became effective July 7, 1970, is a consolidation of the previous Memorandum, as amended by the adoption of a new rate structure, the addition of an understanding regarding the joint despatching of two pilots in certain circumstances, some clarification on the question of detention and delays and other minor changes.

The main features of the 1970 Memorandum of Arrangements reflecting all the changes effected since 1966 are as follows:

- (a) *Pilotage Service*. The required co-ordinated pilotage service is to be under the "administration and control" of the Secretary and Minister who are also responsible to "establish and maintain systems for recruiting and training pilots."
- (b) *Participation in Pilotage Service*. The Memorandum no longer specifies the pilots' strength for each District but agrees on overall parity rather than parity on a District basis. The required number of pilots is to be determined by the Secretary and the Minister by joint administrative decisions.
- (c) *Despatching*. Only the principle is now mentioned without any details. The provision now reads as follows:

"The Secretary and the Minister will establish and maintain, or cause to be established and maintained, facilities for the despatching of pilots and for related services, including pilot boats."
- (d) *Accounting*. Billing, collecting and accounting for pilotage revenues are no longer to be the responsibility of the despatching office concerned but of offices to be established and maintained by the Secretary and the Minister. The cost of despatching and related services as determined by the Secretary and the Minister is to be paid out of pilotage revenues and divided into United States and Canadian shares, no longer on the basis of the availability of pilots but "in proportion to the revenues received for pilotage services rendered by American and Canadian registered

pilots, respectively”, with the exception of revenues collected for services rendered by “pilots registered only for service in Lake Ontario and Kingston harbour” determined on the basis of the number of days the pilots of each country were available for pilotage service. Unless otherwise jointly decided, billing is to be on the basis of the currency of the nationality of the pilot.

- (e) *Pilotage Fees.* A new rate structure, based to a certain extent on vessels’ dimensions, was adopted (pp. 24–25).
- (f) *Two Pilots.* Two pilots may be jointly assigned to a ship upon the request of the ship or for safe navigation when warranted by circumstances. The ship is then charged one and a half times the normal rate.
- (g) *Miscellaneous.* The Memorandum contains the usual agreement regarding the reporting of violations and the undertaking to establish the required rules and regulations to implement the arrangements.

Chapter B

BRIEFS

Fourteen briefs dealing specifically with one or more aspects of pilotage on the Great Lakes were submitted to the Commission.

Pilots

- (1) Federation of the St. Lawrence River Pilots, on behalf of the Corporation of the Upper St. Lawrence Pilots (B.28, Ex. 671);
- (2) Corporation of Professional Great Lakes Pilots (B.36, Ex. 1005);
- (3) American Pilots of Great Lakes District No. 2 (B.54, Ex. 1407);
- (4) Lake Superior Pilots Association, Inc. (B.49, Ex. 1376);

Shipping Interests

- (5) Shipping Federation of Canada, Inc. (B.40, Ex. 1213);
- (6) Canadian Shipowners Association (B.55, Ex. 1436);

Others

- (7) St. Lawrence Seaway Authority (B.60, Ex. 1292) (B.61, Ex. 1469);
- (8) Toronto Harbour Commissioners (B.37, Ex. 1113);
- (9) Hamilton Harbour Commissioners (B.38, Ex. 1105);
- (10) Kingston Industrial Commission (B.29, Ex. 1091);
- (11) International Association of Great Lakes Ports (B.43, Ex. 1350);
- (12) Civil Service Association of Canada (B.35, Ex. 1003);
- (13) Capt. Norman S. Johnston (B.34, Ex. 1004);
- (14) Great Lakes District International Organization of Masters, Mates and Pilots (B.41, Ex. 1289).

In addition to the specific recommendations on Great Lakes pilotage contained in these briefs, a number of general recommendations for basic reforms in the organization and control of pilotage in Canada, including the Great Lakes area, were submitted by the Federation of the St. Lawrence River Pilots (B. 28), Canadian Merchant Service Guild (B.53), Shipping Federation of Canada (B.27), Dominion Marine Association (B.39) and Canadian Shipowners Association (B.55), which were reported upon in Part IV of the Report (pp. 79 and ff.) and to which reference is made.

The Great Lakes pilotage recommendations which follow also show in parentheses where the question raised is dealt with in the Report.

(1) FEDERATION OF THE ST. LAWRENCE RIVER PILOTS ON BEHALF OF THE CORPORATION OF THE UPPER ST. LAWRENCE PILOTS

The Federation of the St. Lawrence River Pilots submitted its brief in the name of its five member-groups, including the Corporation of the Upper St. Lawrence Pilots representing the Canadian registered pilots in Great Lakes District No. 1. It also represented at the hearings the Corporation of Professional Great Lakes Pilots grouping most of the other Canadian Great Lakes pilots. This Corporation joined the Federation as a member-group in 1966.¹

The recommendations specifically referring to the Great Lakes system and to Great Lakes District No. 1 are:

1. *Linesmen*. "That the Seaway furnish linesmen at the approach walls." (Part IV, pp. 915-16.)

2. *Wheelsmen*. "That special wheelsmen be placed on all ocean vessels having more than 3,000 net tons for their passage in the Seaway; in other cases, these wheelsmen can be utilized with the consent of the captain." (Part IV, pp. 917-19.)

3. *Apprenticeship*. "That an appropriate system of apprenticeship be adopted in the district." (Great Lakes District No. 1) (Part IV, pp. 935-38 and Part V, pp. 183-4.)

4. *Exemptions*. "That the only ships exempt from compulsory pilotage in the Kingston district (Great Lakes District No. 1) be the ships presently exempt from the compulsory payment of pilotage dues in the district of Montreal. The exemptions would be the same for American ships as Canadian ships." (Part IV, Rec. 4, pp. 1010 and ff. and Part V, pp. 136-8 and Rec. 2.)

5. *Canada-U.S. Cooperation*. "That there be an Agreement between Canada and the United States for better coordination of the current

¹ The objects and functions of the Federation of the St. Lawrence River Pilots are developed in Part I of the Report, p. 94 and Part IV, p. 80; re the Corporation of the Upper St. Lawrence Pilots, vide pp. 186 and ff., and the Corporation of Great Lakes Pilots, vide pp. 196-7.

administration of pilotage in the Kingston District." (Great Lakes District No. 1) (Rec. 6.)

6. *Centralization of Billing and Despatching of Pilots.* "That there should exist a single place for the billing and dispatching of pilots to the ships in the district and that this place preferably be at Cornwall." (Recs. 8 and 13.)

7. *Kingston Channel.* "That the ships can utilize the Kingston Channel without the pilots suffering penalties because of this." (pp. 220-1.)

8. *First Trip of a Vessel.* "That all vessels exempt from compulsory pilotage be required to take a pilot aboard at the time of their first few voyages in the district." (Great Lakes District No. 1) (Part IV, Rec. 4, p. 1010.)

Two additional recommendations² were made at the hearings:

9. "Two pilots be employed on tugs and tows." (p. 290.)

10. "After December 1st, there should be two pilots on board all ships as in the Quebec-Montreal and Cornwall Districts." (Part IV, Rec. 10, p. 1026, and Part V, pp. 226-7.)

(2) CORPORATION OF PROFESSIONAL GREAT LAKES PILOTS

This Corporation represents the majority of Canadian-registered, Government-employed pilots on the Great Lakes. For the nature, purpose and activities of this Corporation, vide pp. 196-7.

In its brief, the Corporation supported the general recommendations submitted by the Federation of the St. Lawrence River Pilots listed in Part IV, pp. 80 and ff. In addition, it made the following recommendations regarding Great Lakes District No. 2:

1. *Status of the Pilots.* "The status of civil servant should disappear in pilotage and the pilots of District no. 2 should be relieved of their status of government employees." (Part I, Gen. Rec. 24, pp. 545-9 and Part V, pp. 201-8.)

2. "... Canadian and American pilots could meet jointly with the ship-owners periodically to see in what way they can improve the service in district no. 2."

3. *Administration.* "The administration of pilotage and the collecting of pilotage dues should be taken out of the hands of the Department of Transport and handed to the pilots in District no. 2." (Part I, Gen. Rec. 14, pp. 495-9.)

4. *Tariff.* "The pilots' income should be based on the pilotage tariff, as is the case for the American pilots in District no. 2 and all pilots in District no. 1." (pp. 316 and ff.)

5. "... the tariff should be based on draught and tonnage (net or gross), instead of the present flat rate." (pp. 284 and ff.)

² Transcript Vol. 89A, p. 11038.

6. "The tariff should also cover all administration cost as well as pilots' remuneration, as is currently the case in District no. 2." (pp. 281 and ff. and 302 and ff.)

7. *Earnings of Pilots.* Until the administration of the District is entrusted to the pilots' Corporation, "the pilots should be paid a salary of \$1,600.00 per month from April 1st to December 15th in order that their earnings may be closer to their American counterparts and their earnings should be spread over a twelve month period. This salary should be retroactive to August 1st, 1963." (pp. 316 and ff.)

8. *Limits of the District.* "The Department of Transport should define the limits where the compulsory pilotage for the Welland Canal starts and ends. This they have so far refused to do, adding only to confusion." (pp. 169-71.)

9. *Working Rules.* "No working rules should be set up without the participation of the Canadian and the American pilots." (p. 169.)

10. *Dispatchers.* "The dispatchers should be paid a liveable wage and concentrate more on dispatching than keeping statistics. This would help to create a better service." (pp. 170-1.)

11. *Linesmen.* "Linesmen should be placed on all approach walls in the Welland Canal by the Seaway Authority." (Part IV, pp. 915-6.)

12. *Harbour Pilots.* "The pilots should take turns to act as harbour pilots at Port Weller at all times, in order to relieve 3 or 4 pilots waiting below lock no. 1 for several hours. Or again, a special group of Harbour pilots should be licensed for Port Weller Harbour only." (pp. 170-1.)

13. *Derricks Forward.* "Forward derricks should be housed in canals and narrow channels in order not to obstruct the view of the pilot, for safety reasons." (Part IV, p. 914.)

14. *Wheelmen.* "Special wheelmen should be placed on all ocean vessels of more than 3,000 tons net for their passage in District no. 2; in other cases, these wheelmen could be used with the agreement of the master." (Part IV, p. 917.)

15. *Luminous Signals.* "An automatic luminous signal must be attached to the whistle or the siren on the vessels." (Part IV, p. 176.)

16. *Wheel-house Instruments.* "The rudder angle indicator and the speed indicator (R.P.M.) from the propeller must be clearly placed, and well in view, so that no person can shield them from the pilot or helmsmen." (Part IV, pp. 176-7.)

17. *Pilots on the Lakes.* "Sufficient pilots should be licensed for the undesignated waters of the Great Lakes to accommodate those vessels without a "B" License-holder on board, if such a system is to be continued. District no. 2 pilots should never be called to go outside their district; their license should be limited to their district." (Rec. 3 and Part I, pp. 477 and 479.)

18. *Seaway Regulations*. "The St. Lawrence Seaway Authority should enforce their own regulations concerning mooring and landing equipment as per inspection at Montreal. The same applies as to rules concerning radio-operators." (Part IV, pp. 906 and ff. and Part V, pp. 107-9.)

19. *Pilot Cabin*. "A clean and sanitary cabin with a proper bunk should be placed at the disposal of the pilot, on all ships." (Part IV, p. 320.)

20. *Pilot-boat at Port Weller*. "The pilot-boat service at Port Weller should be maintained." (pp. 250-2.)

21. *Supervisor of Pilots*. "The title of Supervising pilot used in District no. 2 to designate the supervisor should be abandoned, as it is a misrepresentation." (p. 163.)

(3) AMERICAN PILOTS OF GREAT LAKES DISTRICT NO. 2

On September 21, 1964, fourteen United States registered pilots in Great Lakes District No. 2, representing then about half of the United States pilots' strength in that District, wrote to the Commission in support of a recommendation made by their Canadian counterpart (i.e., the Canadian Government-employed pilots in the District) that the measure of income of the Canadian pilots should be their performance, thereby receiving equal pay for equal work, as is the case for the American pilots in the District. (Rec. 11.)

(4) LAKE SUPERIOR PILOTS ASSOCIATION, INC.

The Lake Superior Pilots Association, Inc., whose head office is at Duluth, Minn., represents the United States registered pilots of Great Lakes District No. 3 (connecting waters between Lake Superior and Lake Huron). For details of the nature, purpose and activities of the Corporation, vide pp. 197-9.

In its brief to the Commission, the Association made the following recommendations:

1. (*Résumé*) That the compulsory pilotage requirements for both designated and undesignated waters be retained as a means to prevent shipping casualties. (Recs. 2, 3 and 4.)

2. "That pilotage pools and the areas of their reciprocating responsibility be continued under the present arrangements." (Recs. 5, 6, 8 and 14.)

3. "That more authority be exercised at a local level to deal with operational and administrative problems." (Rec. 13.)

4. "That within a particular pilotage pool all participants, U.S. and Canadian, stand on the same footing as free professional pilots." (Recs. 10, 11 and 12.)

5. "That pilots be permitted and encouraged to establish more direct contact among themselves and between the pilots and their associations on the one hand, and shippers and ship owners and their associations on the other." (Part I, Gen. Rec. 25.)

6. "That the role of government in the area of pilotage be reduced to participation only in those problems which must be solved at a governmental level." (Part I, Gen. Rec. 18 and Part V, Rec. 13.)

7. "That if the recommendation that all pilots within a particular pool be treated equally, regardless of nationality, be rejected, that, at minimum, there be greater contact between a pilotage pool and the government agency of opposite nationality to which such pool must report." (Recs. 6 and 10.)

8. "That the existence of port pilotage on the Great Lakes be recognized as a fact and that specific rates and terms be established for this service in the various ports." (Rec. 4.)

9. "To the extent consistent with prior commitments to overseas nations that minimum standards of vessel equipment and navigational aids be established." (Part IV, pp. 176-7.)

10. "That steps be taken to ensure adequate and sanitary facilities for the pilot who must remain aboard a vessel on lake transit." (Part IV, p. 320.)

(5) SHIPPING FEDERATION OF CANADA, INC.

The Shipping Federation of Canada³ submitted a separate brief in connection with pilotage on the Great Lakes in which it made the following recommendations:

"1. That Pilotage on the open waters be eliminated and that until the legislation in both countries can be amended to that effect, the issuance of the "B" Certificates by the Canadian Government be liberalized by eliminating the two-trip requirement, streamlining the waiver procedure and providing for automatic renewal of the certificates to those officers who have already undergone an examination." (Rec. 3 and pp. 138 and ff.)

"2. That the Pilotage scheme for the Great Lakes be revised by dividing the Great Lakes Basin into the following spheres of control:

CANADIAN

From Eisenhower Lock to Cape Vincent (Kingston) in District No. 1;
All ports on Lake Ontario;
The whole of the Welland Canal;
The twin ports of Port Arthur & Fort William in Lake Superior.

AMERICAN

From St. Regis to Eisenhower Lock in District No. 1;
All ports in Lake Erie;
From Southeast Shoal to Sarnia in District No. 2, that is the Detroit River, Lake St. Clair and the St. Clair River including all intermediate ports, both on the American and Canadian sides;

³The objects and functions of the Shipping Federation of Canada are developed in Part IV of the Report, p. 96.

All ports on Lake Huron including ports in Georgian Bay;

All ports on Lake Michigan;

From Detour to Whitefish Bay in District No. 3;

All ports on Lake Superior except the twin Ports of Port Arthur and Fort William,

so as to avoid conflicts in the interpretation of the Regulations as have occurred in areas served by both American and Canadian Pilots, and in order also to streamline despatching and accounting services with one central despatching and accounting office at Cornwall for the Canadian sphere of operations, despatching and accounting for the American Pilots serving in the stretch between St. Regis and Eisenhower Lock to be arranged between the Cornwall Pilotage Office and the Saint Lawrence Seaway Development Corporation, and one central despatching and accounting office at Detroit or Port Huron for the American sphere of operations above the western end of the Welland Canal." (Part IV, Rec. 1; Part V, Recs. 6, 10 and 11.)

"That a system of Port Pilotage with Pilots permanently stationed at the principal ports in the undesignated waters of the Great Lakes be made available to ocean shipping on an optional basis and that this system be put into effect without further delay at the Ports of Hamilton, Toronto and the twin Ports of Port Arthur and Fort William, under the exclusive jurisdiction of the Harbour Commissions in control of these harbours." (Rec. 4.)

"3. That steps be taken immediately to reduce the high cost of administration by centralizing despatching and accounting services as indicated in Recommendation No. 2." (Rec. 6.)

"4. A) That more authority be exercised at the local level to deal with operational and administrative problems that constantly recur and have to be solved promptly on the spot." (Recs. 6, 13 and 14.)

"B) For the area within the Canadian sphere of control, that is from Eisenhower Lock to the western end of the Welland Canal, it is recommended that the local Committee be composed of the Supervisor of Pilots with head office at Cornwall with as Advisers a representative of The St. Lawrence Seaway Authority and a representative of the Saint Lawrence Seaway Development Corporation." (Rec. 8.)

"C) That in the Ports of Toronto and Hamilton, the Pilots remain under the jurisdiction of the respective local Harbour Commission." (Rec. 4.)

"D) That in the twin Ports of Port Arthur and Fort William, the Harbour Commission for the Lakehead take over control of Pilotage and jurisdiction over the Pilots operating within these Harbours." (Rec. 4.)

"5. That representatives of the shipping interests be permitted to attend meetings held between officials of the United States Great Lakes Pilotage Administration and the Canadian Government." (Part I, Gen. Recs. 16-19.)

(6) CANADIAN SHIPOWNERS ASSOCIATION

The Canadian Shipowners Association in its brief to the Commission, in addition to making general recommendations for basic reforms in the organization and control of pilotage in Canada (Part IV, pp. 104 and ff.), made the following specific recommendations with respect to pilotage on the Great Lakes:

1. "By negotiation with the American government endeavour to:

(a) (i) Divide the restricted areas of the St. Lawrence River and Great Lakes basin shared jointly by the United States

and Canada into defined unilateral spheres of control for pilotage purposes." (Rec. 6.)

"(ii) Discontinue the need for special qualifications or the use of pilots during navigation in the other waters of the Great Lakes." (Rec. 4.)

2. "Review the proposed revisions currently being considered by the United States Coast Guard in the Rules of the Road for Inland Waters to determine their acceptability and adoption in Canada." (Part IV, pp. 927-9.)

(7) ST. LAWRENCE SEAWAY AUTHORITY

The St. Lawrence Seaway Authority⁴ presented on September 14, 1964, a "Brief and Answers" (Ex. 1292) in reply to a series of questions posed by the Commission concerning regulations, procedures, records and views of the Seaway Authority in connection with pilotage on the Great Lakes.

While the brief contained no direct recommendations, the Seaway Authority stated, in answer to a question asked by the Commission whether the Authority was in favour of having pilots as employees, that it would be willing to accept such a responsibility if this would contribute to the safe and expeditious transit of vessels. However, it indicated at the time that the absence of a background of experience and familiarity with the problems involved prevented it from making detailed suggestions in the matter.

Subsequently, the Authority, after having given close study to the division of responsibility between the administration of pilot services and the operation of the Seaway, came to the conclusion that canal pilotage should become an integral part of canal operations and recommended on March 15, 1966, in a supplemental brief to the Commission (Ex. 1469), that the responsibility for the employment and control of pilots in the Seaway area should be transferred to it. The Federation of the St. Lawrence River Pilots and the Dominion Marine Association expressed their opposition to such a transfer of responsibility. The matter is further reported upon in Part IV, pp. 932-3.

(8) TORONTO HARBOUR COMMISSIONERS

The Toronto Harbour Commissioners are constituted under a 1911 federal statute (1-2 Geo. V c. 26) to hold and administer, on behalf of the city of Toronto, certain properties and to pass by-laws, subject to the approval of the Governor in Council, to control navigation and all works and

⁴ A description of the functions and responsibilities of the St. Lawrence Seaway Authority is given in Part IV, pp. 905 and ff.

operations within the limits of "the port and harbour of Toronto" as defined.⁵ The Commission consists of five Commissioners, three appointed by the city of Toronto, one by the Governor in Council and one by the Governor in Council upon recommendation of the Toronto Board of Trade.

With the introduction and expansion of direct overseas trade due to the opening of the St. Lawrence Seaway, the Toronto Harbour Commissioners instituted in 1961, with the concurrence of the Dept. of Transport, Ottawa, a voluntary port pilotage service to assist Masters not acquainted with local details and wishing such assistance (*vide pp. 129 and ff.*).

Accordingly, in a brief presented to the Commission on April 7, 1964, it was recommended that:

- (a) compulsory pilotage should not be required for any ship using the port of Toronto;
- (b) compulsory pilotage requirements in the Great Lakes area should be based on the necessity for service only and not related to the wage demands of Great Lakes registered pilots (Recs. 2 and 3).

(9) HAMILTON HARBOUR COMMISSIONERS

The Hamilton Harbour Commissioners are incorporated under a 1912 federal statute (2 Geo. V c. 98) to hold and administer certain properties on behalf of the city of Hamilton, and to pass by-laws, subject to the approval of the Governor in Council, to control navigation and all works and operations within the limits of "the harbour of Hamilton" as defined.⁶ The Commission consists of three Commissioners, one of whom is appointed by the city of Hamilton and two by the Governor in Council.

The Hamilton Harbour Commissioners were the first Canadian Great Lakes port authorities to institute a voluntary port pilotage service. This was done in the spring of 1959 primarily for the benefit of Masters of ocean ships unfamiliar with Hamilton harbour (*vide pp. 125 and ff.*).

The Harbour Commissioners have recommended that Part VIA of the Canada Shipping Act "be further amended to authorize The Hamilton Harbour Commissioners to act in lieu of registered pilots within the Hamilton Harbour and approaches thereto." (Rec. 4.)

(10) KINGSTON INDUSTRIAL COMMISSION

The Kingston Industrial Commission is a body appointed by the city of Kingston to develop, foster and attract industry and commerce to the municipi-

⁵ *Vide p. 92* for a brief description of the harbour.

⁶ *Vide p. 92* for a brief description of the harbour.

pality. In a brief which it presented to the Commission on March 19, 1964, it contended that the port of Kingston was placed in a most unfavourable position financially as compared to the ports of Toronto and Hamilton by reason of the fact that it was the only Lake Ontario port included in the designated waters of District No. 1, and this without just cause since it presents no unusual navigational difficulties.

Therefore, the Kingston Industrial Commission sought relief by recommending that, in respect of pilotage requirements, the port of Kingston be placed on the same basis as the ports of Toronto and Hamilton through an appropriate modification of the present westerly limits of Great Lakes Pilotage District No. 1 (pp. 136-8).

(11) INTERNATIONAL ASSOCIATION OF GREAT LAKES PORTS

The International Association of Great Lakes Ports was formed in 1960 as a loose association of United States and Canadian Great Lakes ports for the following purposes: "to exchange information relative to port construction, maintenance, operation, organization, administration and management; to promote port development and commerce along sound economic lines; to encourage the development and use of waterborne transportation between Great Lakes and all world ports; and to coordinate as far as practical all actions and activities in furtherance of the aforesaid common interests."

When this Association was formed in 1960, it consisted of 18 member-ports, as follows:

Toronto, Ontario	Cleveland, Ohio
Hamilton, Ontario	Toledo, Ohio
Lakehead, Ontario	Detroit, Michigan
Ogdensburg, New York	Muskegon, Michigan
Oswego, New York	Chicago, Illinois
Rochester, New York	Milwaukee, Wisconsin
Buffalo, New York	Green Bay, Wisconsin
Erie, Pennsylvania	Superior, Wisconsin
Duluth, Minnesota	Kenosha, Wisconsin

The membership has since been augmented by the ports of Bay City, Mich., Lorraine and Ashtabula, Ohio.

The Association presented a brief to this Commission on Sept. 28, 1964, in which it made the following recommendations:

1. "Adopting as quickly as possible the International Rules of the Road for application within the Great Lakes." (Part IV, pp. 927-9.)

2. "A change in the present method of clearing vessels for Great Lakes operations by setting up a thorough check of the vessel and the qualifications of its personnel at the first port of call, which would be Montreal." (Part IV, pp. 904 and ff.)

3. "That pilotage in open waters be eliminated, or at least the regulation covering the issue of "B" certificates be simplified and the waiver procedure be modified to allow the master to proceed at once when he is advised by the pilot station that pilots are not immediately available." (Rec. 3.)

4. "That, as suggested by the Shipping Federation of Canada, some program should be instituted to allow closer liaison between members of the shipping interests and the United States Great Lakes Pilotage Administration and the Canadian government." (p. 65.)

(12) CIVIL SERVICE ASSOCIATION OF CANADA

The Civil Service Association of Canada, which no longer exists, presented a brief to the Commission dated March 9, 1964, on behalf of 12 pilots and three despatchers, then members of the Association, and representing about one third of the Canadian-registered, Government-employed pilots in Great Lakes District No. 2.

In November 1966, the Civil Service Association (30,000 members) and the Civil Service Federation (80,000 members) merged to form the Public Service Alliance of Canada, which was subsequently certificated for purposes of collective bargaining under the Public Service Staff Relations Act. None of the 12 Government pilots who had belonged to the Civil Service Association ever became members of the Public Service Alliance. By 1970, all but one of the 42 Canadian Government-employed pilots in District No. 2 had joined the local Pilots' Corporation, i.e., the Corporation of Professional Great Lakes Pilots.

It may be recorded, however, that the Civil Service Association made the following recommendations at the time it presented its brief to the Commission:

that all pilotage in Canada be part of the Public Service, and that a special agency of the Crown be established to control and administer all aspects of pilotage. (Part I, Gen. Recs. 24 and 16.)

(13) CAPT. NORMAN S. JOHNSTON

Capt. N. S. Johnston of St. Catharines, Ont., is a retired Great Lakes Master who held a pilot's licence in the former Pilotage District of St. Lawrence-Kingston-Ottawa. During 1959-62 he was instrumental in the formation and direction of the Sailing Masters' organization which was incor-

porated under the name of the "Great Lakes Pilots Association" (pp. 50 and ff.).

In March 1964, he submitted a brief to this Commission which was followed by a supplement in September 1964. There were numerous recommendations, all emphasizing the following basic subjects:

(a) *General Recommendations* (Part I, General Recommendations, pp. 455–581)

- (i) Pilotage in Canada should be established under the authority of a Pilotage Commission consisting of representatives from the shipping companies, pilot organizations and the Department of Transport.
- (ii) The proposed Pilotage Commission should be a regulatory body duly authorized to sit as an arbitration tribunal in unsettled disputes when all normal processes of negotiations have been exhausted.
- (iii) Pilotage should be established and controlled in Canada as a free enterprise, the licensing of pilots being regulated accordingly.

(b) *Specific Recommendations for the Great Lakes*

Pilotage on the Great Lakes, west of Cornwall/St. Regis, should be governed under joint arrangements between Canada and the United States providing, among other things, for

- (i) compulsory pilotage, but for ocean-going vessels only, in certain restricted waters designated by both Governments (Recs. 2 and 3);
- (ii) division of the Great Lakes into the following four Pilotage Districts (Rec. 6):
 - District 1—Cornwall to Kingston/Cape Vincent;
 - District 2—Kingston/Cape Vincent to lock 7, Welland Canal;
 - District 3—Lock 7, Welland Canal to Sarnia/Port Huron;
 - District 4—Sarnia/Port Huron to all ports on Lake Huron, Georgian Bay, Lake Michigan and Lake Superior;
- (iii) establishment of joint pilotage pools in these Districts, the Canadian and United States pilots enjoying the same status as free entrepreneurs (Rec. 10);
- (iv) equality of opportunity, reciprocity of treatment and similar working conditions for the pilots of both countries (Recs. 11–14);
- (v) all Great Lakes Master Mariners with at least three full successful seasons as Masters in the Great Lakes system to have the right to be registered as pilots for that system and to be employed as pilots when required (Part I, pp. 250–76 and Gen. Recs. 23 and 38).

(14) GREAT LAKES DISTRICT INTERNATIONAL ORGANIZATION OF
MASTERS, MATES AND PILOTS

The President of the Great Lakes District International Organization of Masters, Mates and Pilots, Capt. Rolla R. Johnson, with headquarters in Cleveland, Ohio, submitted a brief to the Commission on May 11, 1964. The brief consists of a refutation of the submission made by the Shipping Federation of Canada concerning pilotage on the Great Lakes but no specific recommendations are made. Capt. Johnson declined to reveal the names of the Canadian members of the organization and the extent to which they supported his brief.

Chapter C

EVIDENCE

1. GENERAL DESCRIPTION

(1) GREAT LAKES SYSTEM LIMITS, PHYSICAL FEATURES AND MAIN PORTS

The Great Lakes system (for its legal description, vide p. 5 and p. 31) is the most inland portion of the 2,300-mile waterway—the world's largest—formed by the Gulf and River St. Lawrence and the Great Lakes. It begins in the east with Lake Ontario at the head of the St. Lawrence and extends over some 95,000 square miles to the western end of Lake Superior. As far as pilotage legislation and organization are concerned, the Great Lakes system also includes the international section of the St. Lawrence River as far east as the United States/Canada boundary at St. Regis, Que., $5\frac{1}{2}$ miles downstream from Snell lock. The system contains more than 50 ports, the farthest west on Lake Superior being Duluth, Minn., 1260 statute miles from Snell lock, and Thunder Bay, Ont., 1,139 statute miles, and on Lake Michigan, Chicago, 1,165 statute miles (statute miles are normally used on the Great Lakes).

Over 200 million tons of cargo move in coastal, transborder and overseas trade over the Great Lakes and connecting channels; in fact, the rich industrial empire that flourishes in this region became possible largely because of the transport potential of this inland waterway.

Except for Lake Michigan (wholly in United States territory) and the Welland Canal (wholly in Canadian territory), which was built to by-pass Niagara River and Falls, all the Great Lakes and their connecting channels, including the St. Lawrence River downstream to St. Regis, are boundary waters. While the transit waterway follows the natural channel or has been dredged where most convenient, each country retains complete jurisdiction over the waters on its side of the boundary and accepts full responsibility for improving and maintaining those parts of the channels within its territory, as well as establishing, after consultation, the required floating and land-based aids to navigation. The same policy was followed with regard to the St. Lawrence Seaway and the Sault Ste. Marie locks, each country retaining full control over, and responsibility for, the facilities situated within its territory (vide Part IV, pp. 904 and ff.). The only exception to this policy of non-infringe-

ment on sovereignty concerns supervision of the outflow at the control dams, i.e., on the St. Marys River between Lake Superior and Lake Huron and on the St. Lawrence River near Cornwall, which is entrusted to a commission created by the Boundary Waters Treaty of 1909 between Canada and the United States: *The International Joint Commission*.

The surface elevation of Lake Superior is some 600 feet above mean sea level, i.e., 440 feet above the elevation at Snell lock where the Great Lakes system, as defined in this Report, begins. In addition to the gradual incline in some of the connecting channels, the main differences in level occur at the Sault Ste. Marie rapids, at Niagara Falls and at the Moses-Saunders powerhouse near Cornwall, necessitating the construction of canals and locks to permit navigation.

The water level of the Lakes fluctuates both during the year and from year to year in relation to the balance between supply and loss due either to natural causes or human interference. During the course of each year, the level is subject to a consistent seasonal rise and fall, usually lowest near the end of winter and highest during the late summer. In addition, there are sudden fluctuations due to strong winds, particularly on Lake Erie, with resultant depth problems for several Great Lakes ports. These variations, which may range from a 2-foot maximum on Lake Superior to an 8-foot maximum on Lake Erie, are particularly noticeable in bays and at the mouth of tributary rivers where water accumulates in restricted areas. This condition is very pronounced, for instance, at Green Bay Harbor on Lake Michigan and at the mouth of the Saginaw River on Lake Huron. Both the Canadian Hydrographic Service and the U.S. Army Corps of Engineers publish monthly bulletins of lake levels and also special warnings when occasion arises.

(a) *Lake Superior*

The most elevated and largest of the Lakes, it is characterized by high rocky shores and, compared with the others, has deeper, colder water, is more subject to wind influence and has a somewhat shorter navigation season. The distance from Duluth at the western tip to the head of St. Marys River at Point Iroquois is 379 statute miles.

There are no unusual navigational difficulties in its open waters or in the approaches to its two principal ports, Thunder Bay, Ont. (previously Fort William-Port Arthur, renamed Jan. 1, 1970) and Duluth, Minn.

The port of Thunder Bay, situated on the western shore of the bay of the same name, is the western terminus of Great Lakes navigation in Canada. Its facilities include some 25 grain elevators and several wharves with berthing facilities for bulk grain and iron ore carriers and ocean-going vessels. It is administered by the Lakehead Harbour Commissioners, a body corporate under the Lakehead Harbour Commissioners Act (7 Eliz. II c. 34). The port pilotage service which the Shipping Federation of Canada, and later the De-

partment of Transport, had organized was discontinued when the pilots' pool of District No. 3 was formed.

The port of Duluth, officially known as Duluth-Superior harbour, is one of the most important on the Great Lakes, both for its facilities and the extent of its trade. There are two wide, deep entrance channels, Duluth Ship Channel in the north and Superior Entry in the south. On the harbour frontage of 49 miles there are 106 wharves, including seven ore wharves, 10 coal receiving wharves with storage capacity of over six million tons, and 14 grain elevator wharves with storage capacity of 73 million bushels.

(b) *St. Marys River—Designated Pilotage Waters (District No. 3)*

The natural outlet from Lake Superior into Lake Huron is through St. Marys River, the 57-mile long boundary river from Point Iroquois light to Point Detour light. The average transit time is 8 hours. These connecting waters have been "designated" pilotage waters, and the area is known as Great Lakes District No. 3.

At Sault Ste. Marie, 15 miles below the head of the river, there are natural rapids where the river drops some 21 feet. To overcome this barrier to through navigation, five parallel locks and three parallel canals have been constructed—four locks and two canals by the United States, one lock and a canal by Canada. The largest is the U.S. Poe lock. It was recently enlarged to 1,200 feet by 105 feet by 31 feet to accommodate larger lakers primarily designed to carry ore pellets produced on the Mesabi range in Minnesota from Duluth and other U.S. ports on Lake Superior to Lake Michigan and Lake Erie steel mills. The Canadian lock, 900 feet long and 17 feet deep, comes under the jurisdiction of the St. Lawrence Seaway Authority.

Sault Ste. Marie, Ont., is the only port on the St. Marys River. Its wharves are located along the waterfront, both above and below the Canadian channel which has a swept depth of 18½ feet.

The level and outflow of Lake Superior through St. Marys River have been completely controlled since 1921 by the International Joint Commission.

The distance from Point Iroquois to the locks is 15 statute miles through a six-course dredged channel with a least width of 1,000 feet. For the first 25 of the 48 miles from the locks to Point Detour light at the downstream end of the St. Marys River into Lake Huron, there is a dredged channel with a minimum width of 600 feet in a series of straight courses. It is a two-way channel which, in Lake Nicolet, branches around Neebish Island into two one-way channels, the eastward one for upbound traffic, the other for downbound traffic. South of Neebish Island, the one-way channels merge into a 23-mile natural channel, nowhere less than a third of a mile wide and generally much wider, which is also negotiated through a series of straight courses.

Local knowledge and experience are required to navigate this connecting channel; the main hazards are short bends, cross-currents and traffic in the two-way channels. It is also difficult to find an anchorage and anchor when visibility is restricted.

There is a pilot station at each extremity of the St. Marys River, one off Gros Cap Reef light in the north and the other off Point Detour light in the south.

(c) *Lakes Michigan and Huron and the Straits of Mackinac*

Lake Huron is the second largest of the Great Lakes, slightly larger than Lake Michigan. Both are at virtually the same level and are connected by the broad, deep Straits of Mackinac.

The Straits offer no special navigational difficulties and are not included in designated waters. There are two main routes through the Straits: vessels navigating between Lake Superior and Lake Michigan ordinarily use the northern route, passing between Round Island and Mackinac Island, while those navigating between Lake Michigan and the lower Lakes use the southern route, passing to the south of Bois Blanc Island and Poe Reef. Both channels are 1,500 feet wide and 27 feet deep.

On Lake Huron, the distance from Detour to Port Huron-Sarnia is 227 statute miles. On Lake Michigan, the distance from Chicago to the Straits is 320 statute miles. There are no unusual navigational problems in the open waters of those Lakes, including Georgian Bay, with the possible exception that the many ferries which continually cross Lake Michigan at several points present the risk of collision with vessels bound for Chicago or Milwaukee which cross the car ferry routes almost at right angles.

While there are a number of ports on Lake Huron, only Port Huron is of importance for ocean-going traffic. There are some 14 ports on Lake Michigan but only two of importance, Green Bay, Wis., and Calumet (or South Chicago Harbor) Ill., both with restricted access.

Green Bay is located on the northwestern portion of the lake, in the bay of the same name. The bay, screened by several islands, extends southwest for approximately 100 miles and terminates at the mouth of the Fox River where the port lies. The approach is through three passages between the barrier islands: from the north through Rock Island Passage (about $1\frac{1}{2}$ miles wide), through Porte des Morts at the northern end of the bay and from the south through Sturgeon Bay Canal, some 30 miles north of the port. The canal varies in width from 600 to 200 feet and is spanned by a railroad swing bridge. The United States Coast Guard controls traffic by radiotelephone and institutes one-way traffic through the bridge draws.

Calumet (or South Chicago Harbor), which handles most of the traffic, is located at the mouth of Calumet River. Inland lies Lake Calumet Harbor located on Lake Calumet, about $6\frac{1}{2}$ miles upstream. The river is spanned

by some 14 lift or swing bridges. When in transit, vessels are not permitted to pass each other in opposite directions—one must stop or moor to allow the other to pass. Tugs are used in Calumet River and Calumet Harbor.

Most other ports, such as Chicago, Ill., Milwaukee and Kenosha, Wis., on Lake Michigan, Goderich and Bay City, Ont., on Lake Huron, and Owen Sound and Collingwood, Ont., on Georgian Bay, are easy of access and present no unusual navigational difficulties.

(d) *St. Clair River, Lake St. Clair and Detroit River—Designated Pilotage Waters (District No. 2—Western Sector)*

The natural outlet from Lakes Michigan and Huron runs about 85 statute miles from Port Huron/Sarnia, at the foot of Lake Huron, through St. Clair River, Lake St. Clair and Detroit River to Detroit River light at the head of Lake Erie. These connecting waters, plus the western end of Lake Erie up to Pelee Passage and Southeast Shoal, are “designated” pilotage waters, and form the western sector of Great Lakes District No. 2 (127½ statute miles in length).

There is a drop in water level of approximately eight feet between Lake Huron and Lake Erie but the gradient and outflow in St. Clair River and Detroit River are relatively uniform. There are no canals but a navigation channel has been dredged through the two rivers and Lake St. Clair to provide a depth of at least 27 feet for Seaway navigation.

The shorelines of this connecting channel are densely populated. The owners and operators of the many small craft in these comparatively narrow channels are prohibited from manoeuvring and anchoring in the main ship channel in order to reduce the risk to large vessels.

The head of the St. Clair River is reached from the open waters of Lake Huron by a dredged channel running five miles through extensive flats at the southern end of the lake. The pilot boarding station, which is situated at the lake entrance to this channel, is marked by a lightship.

The cities of Sarnia, Ont., and Port Huron, Mich., are situated at the head of the river near Lake Huron. Sarnia has numerous industries, particularly in the petrochemical field, and a public harbour with over two miles of wharves, mostly privately owned. A highway bridge with a clearance of 150 feet above high water spans the river between Point Edward and Port Huron. Port Huron is a port of some importance.

The upper section of the 30-mile St. Clair River consists of a winding, deep natural channel which presents no outstanding navigational difficulties but the lower part is a delta which extends from Chenal Ecarte at the northern end of Walpole Island where the river branches into several arms run-

ning between islands to the outlet into Lake St. Clair. Before reaching the lake, the main channel branches into the curving St. Clair Flats Canal, which is now rarely used, and the recently built Southeast Bend Cut-off Channel which is straight, five miles long and 700 feet wide.

While there are several good anchorage grounds along the St. Clair River, their limited width poses manoeuvring problems for large downbound vessels which must turn to stem the current before anchoring.

Lake St. Clair is an extensive shallow basin through which a dredged two-way ship channel 800 to 700 feet wide runs for 17 miles to the head of the Detroit River. It has no commercial or industrial communities and no harbours of consequence.

The Detroit River is about 32 miles long. The river divides into two quite characteristic sections at the head of Fighting Island. The upper section, roughly 15 miles long and of uniform breadth, is free of shoals and obstructions, the water is deep and runs through fairly steep banks at a velocity of approximately $1\frac{1}{2}$ knots. The lower section features three successive channels dredged to Seaway specifications: Fighting Island Channel, Ballards Reef Channel and Amherstburg (upbound)/Livingstone (downbound) Channels which merge into one for $2\frac{1}{2}$ miles between Bar Point light and Detroit River light. In this section of the Detroit River, the velocity of the outward flow progressively decreases from about five to two knots.

At Detroit River light, the ship channel leads into Lake Erie through either the East Outer Channel, six miles long, 1,200 feet wide, used by both downbound and upbound traffic, or the West Outer Channel, $3\frac{1}{2}$ miles long, 800 feet wide, used only by downbound vessels.

Detroit, Mich., one of the largest ports on the Great Lakes, stretches along the western side of the upper section of the river opposite Windsor, Ont. It is 62 miles from Port Huron pilot station. The deep-water frontage extends for some 32 miles: 22 miles on the river between Windmill Point and Trenton Channel turning basin and about 10 miles on the banks of the Rouge River, a branch channel off Detroit harbour. Pilots are often required to take vessels to the various overseas terminals on the Detroit River side, and sometimes into the narrow, winding Rouge River. As a rule, tugs are not used in the harbour except on the Rouge River. Pilots also take vessels to Windsor but few ocean-going vessels call there.

The other port of importance in the area which can accommodate deep-sea vessels is the natural harbour of Toledo (Ohio) at the western end of Lake Erie, 54 miles south of Detroit and 116 miles south of Port Huron pilot station. It is reached from deep water in Lake Erie through a channel 18 miles long, 500 feet wide and dredged to 28 feet. Because there is no anchorage area in this dredged channel or in Toledo harbour, accurate information must be obtained whether a berth is available before committing a

vessel to the channel. Two bridges must be negotiated to reach the upper harbour.

The western end of Lake Erie, from Detroit River light to Southeast Shoal light, where Lake Erie undesignated waters commence, a sailing distance of 36 miles, also forms part of the designated waters of the western sector of District No. 2. Except for the shallow flats at the far western end of Lake Erie where channels had to be dredged to provide access to the ports of Toledo and Monroe and to the Detroit River, navigation of the 27-mile route between the head of the dredged channels and Pelee Passage presents no difficulties. Separate one-way shipping routes are followed through deep, unobstructed open waters. The 8.5-mile Pelee Passage is generally wide except in one place where it is restricted to two one-way channels, approximately 1,000 feet wide, separated by a shoal marked by a buoy. The main hazard is the intensity of traffic in the area because all the main courses between the eastern sector and the western sector of Lake Erie pass through Pelee Passage. The channel through Pelee Passage, which is situated between Pelee Point on the mainland and Pelee Island, affords ample width and depth for large vessels. The passage to the south of Pelee Island is interspersed with shoals and shallow patches and is used only by vessels of light draught.

The U.S. Lake Erie port of Sandusky is situated in this last named area at the very edge of the western sector of District No. 2. This port is visited by some vessels subject to the compulsory Great Lakes pilotage requirements and is thereby placed in the same position with regard to Lake Erie ports situated in the undesignated waters as is Kingston with regard to ports situated in the undesignated waters of Lake Ontario (pp. 137-8). Although it offers no greater navigational difficulties and is reached through the open waters of Lake Erie, vessels with a "B" certificate-holder on board must be moved in the harbour and brought in and out by a District No. 2 registered pilot.

The absence of a pilot boarding station in the Southeast Shoal area is a serious impediment to the efficient operation of pilotage and has precluded the creation for Lake Erie of a separate lake pilots' group, as was done for Lake Ontario and the undesignated pilotage sectors of Lakes Huron/Michigan. Since non-exempt vessels must be navigated by registered pilots in the designated waters west of Southeast Shoal, these pilots have to be carried 10 to 12 hours across the open waters of Lake Erie from or to Port Colborne where they board or disembark. This procedure involves, *inter alia*, considerable wastage of their time.

(e) *Lake Erie*

Lake Erie is the shallowest and second smallest of the Great Lakes. The run from Southeast Shoal to Port Colborne is 180 statute miles. Due

to its long axis, water levels in harbours—particularly those near each end of the Lake—fluctuate under the influence of the wind, varying with its direction, strength and persistence. For instance, a westerly wind piles up water at Port Colborne and Buffalo and differences in level as high as 11 feet have been observed at Port Colborne following a sudden change in wind force and direction. To guard against such rapid variations in water level, the harbours at Port Colborne and Buffalo are protected by extensive breakwaters. Similarly, in the Welland Canal, immediately before the canal terminates at Lake Erie, there is a guard lock (lock 8) through which vessels pass between the Lake and the regulated summit level of the canal. The variation in lift depends on the level of the Lake prevailing at the time.

The unobstructed open waters of Lake Erie present no navigational difficulties and all the lake ports which face them (except Toledo, as noted earlier) are easy of access. Toledo and Cleveland (Ohio) and Buffalo (N.Y.) are the main ports. All three are commercial and general ports of call where manufactured goods, grain, coal, iron ore and many other commodities are handled. Other ports, but of lesser importance, are Port Stanley, Port Burwell and Port Colborne (Ontario), Sandusky and Ashtabula (Ohio), Erie (Penn.) and Tonawanda (N.Y.). These ports, except Toledo, Sandusky and Port Colborne, are included in the undesignated waters of Lake Erie.

(f) *Welland Canal—Designated Pilotage Waters*
(District No. 2—Eastern Sector)

The natural outlet from Lake Erie into Lake Ontario is through the boundary waters of the 27-mile Niagara River whose level drops 326 feet at Niagara Falls. This obstacle to navigation is overcome by the Welland Canal situated in Canadian territory which cuts across the Niagara Peninsula west of, and roughly parallel to, the Niagara River.

The first Welland Canal was started in 1824 (vide Part IV, p. 579) and has since undergone three major stages of enlargement and improvement completed in 1845, 1887 and 1932. Extensive works have been underway since June 1967 consisting of a 8.6-mile channel relocation between Port Robinson and Ramey's Bend whose scheduled completion date is 1972.

The canal is 27.6 miles long, has eight locks and is aligned almost exactly north and south. The Lake Ontario or northern entrance is at Port Weller and the Lake Erie entrance is at Port Colborne. The canal is a "designated" pilotage area for ocean vessels, forming the eastern sector of Great Lakes Pilotage District No. 2.

Lifting or lowering vessels between the levels of Lake Ontario and Lake Erie, involving some 326 feet, is accomplished by a series of seven locks concentrated in a seven-mile stretch between Port Weller and Thorold.

Locks 4, 5 and 6 at Thorold are twin locks allowing vessels to proceed in both directions simultaneously. From the head of lock 7 at Thorold across the remainder of the peninsula to Port Colborne, a distance of 20 miles, the canal is normally at the same level as Lake Erie. As noted earlier, the guard or control lock near Port Colborne (lock 8) is used only when the water level at the eastern end of Lake Erie rises under the influence of the wind.

These eight locks in the Welland Canal have the same controlling dimensions as those in the new Seaway from Montreal to Lake Ontario, i.e., 766 feet \times 80 feet \times 30 feet. Vessels not exceeding 730 feet overall and 75.6 feet extreme breadth may transit the canal; the maximum permissible draught is 26 feet (increased from 25'9" Nov. 9, 1970).

Spanning the canal at intervals are 18 movable bridges and one high-level, fixed-span bridge which accommodate the numerous railway and highway traffic arteries across the peninsula. Thirteen of these bridges are located in the 20-mile stretch between Port Colborne and Thorold. Apart from these bridges, which are a hindrance to navigation, there are other difficulties created by prevailing wind and weather, surging currents and type and size of vessels which may all cause delays. For instance, the outflow from the pondage pools below locks 2 and 3 causes eddies and cross-currents in the lower approaches; the tie-up wall below lock 4 is very short and medium-sized vessels have to be made fast because of the current created when the lock is emptied; below bridge 20 at Port Colborne, vessels cross the entrance to a feeder (a canal which is used to feed water into the Welland Canal) which causes a strong current that may run between 3 and 4 knots.

Vessels transiting the canal are under the control of the St. Lawrence Seaway Authority and subject to the Seaway Regulations which were reviewed earlier (vide Part IV, p. 906).

Time of transit varies with the volume of traffic, type of vessel, prevailing weather and familiarity with local conditions and procedure. Before 1964, conditions were such that close to 24 hours were required to transit the canal. However, as a result of improvements made by the St. Lawrence Seaway Authority since 1964, travel times between locks 1 and 8 in either direction now average less than 12 hours, despite increases in cargo tonnage and ships' size. To assist in implementing new traffic control procedures, modern electronic equipment, such as closed circuit television, lock telemetry and visual display boards, were introduced in the canal in 1966.

(g) *Lake Ontario*

Lake Ontario is the lowest in the Great Lakes chain. The run from Hamilton at the west end of the Lake to Kingston at the outlet at the head of the St. Lawrence River is 185 statute miles. However, Lake Ontario is much deeper (774 ft.) than Lake Erie (210 ft.) and, hence, fluctuations of water level due to wind are comparatively small.

In general, Lake Ontario is free from outlying shoals and navigation in its open waters presents no unusual difficulties. The principal harbours along the Canadian shore are Toronto, Hamilton and Oshawa, and, on the United States side, Rochester and Oswego, N.Y. These harbours face the Lake and are all easily accessible. The largest are Toronto and Hamilton.

Toronto is near the western end of the Lake, directly across from Port Weller, 26 miles away. It is a landlocked harbour with two channel entrances. The main one, called the Western Gap, has a depth of 28 feet; the other, called the Eastern Gap, has a depth of only 16–18 feet owing to continuous silting and is used by small craft. The sheltered harbour area is about $2\frac{1}{2}$ miles in length and one mile wide, with facilities for a large number of vessels. The harbour has some 78 wharves and piers of various lengths and depths, the largest being 3,300 feet in length with 26 feet alongside. The harbour is under the control of Harbour Commissioners. They maintain port pilotage service, principally for ocean vessels (vide pp. 129 and ff.).

Hamilton is situated at the western end of the Lake, 30 miles west of Port Weller. It is also a landlocked harbour, triangular in shape, five miles long by up to three miles wide providing shelter for scores of vessels. There are some 26 wharves and piers of various lengths and depths, the largest being 4,000 feet in length with 26 feet alongside. The harbour is separated from the Lake by a natural sand barrier, through which the Burlington Canal (available draught 28 feet) has been cut to afford access. Two bridges span the canal: a combined highway and railway vertical bridge, with a clearance of 120 feet when open, at the eastern end, and the Burlington Skyway high-level bridge, with a vertical clearance of 120 feet, which spans the canal about 100 yards further westward. The harbour, like Toronto's, is under the control of Harbour Commissioners (vessels requiring port pilotage service employ either a registered pilot or a Toronto harbour pilot (vide p. 132). As in Toronto, pilotage is not compulsory but at the discretion of the Master. Although the service is advocated for quicker despatch, there are no unusual navigational problems. Also as in Toronto, the main hazards are variable currents across the channel entrance caused by strong winds.

(h) *St. Lawrence River, Kingston to Cornwall—Designated Pilotage Waters (District No. 1)*

The natural outlet from Lake Ontario is through the St. Lawrence River which, from its head at the eastern end of the Lake to the Gulf of St. Lawrence (some 500 miles to Father Point), drops 244 feet in elevation:

Kingston–Cornwall: drop in elevation, 92 feet;

Cornwall–Montreal: drop in elevation, 130 feet;

Montreal–Gulf : drop in elevation, 22 feet.

The waters between Cape Vincent and St. Regis in the Province of Quebec are boundary waters. They are “designated” pilotage waters and form part of the Great Lakes system as defined in Canadian and United States pilotage legislation. The area is known as Great Lakes Pilotage District No. 1. There are two pilot boarding stations, Cape Vincent at the western end and Snell lock at the eastern end.

From the point of view of navigational features, the section between Cape Vincent and Cornwall may be divided into three sectors: Cape Vincent—Brockville, Brockville—Prescott and Prescott—Snell lock. The remaining 5½-mile stretch of the Great Lakes system between Snell lock and St. Regis is treated for all practical purposes as an integral part of the Cornwall Pilotage District (Part IV, p. 900).

(i) *Cape Vincent to Brockville*

The River between Cape Vincent and Brockville, a distance of 50 statute miles, is strewn with islands, large and small, most of which are inhabited. Therefore, reduced speed is enforced throughout this area (11 miles downbound, 9 miles upbound) to protect property. However, with the exception of the Upper Narrows in the Thousand Islands Bridge area, and the Brockville Narrows just above Brockville, the Seaway channel is straight, wide (600 feet) and deep, the depth ranging from 27 feet in the improved sections to 90 feet in the natural channel. The *Upper Narrows* extend for about eight miles, four above and four below the Thousand Islands Bridge. This channel is deep (90 to 150 feet) but is no more than 250 feet wide, flanked on either side by land. The River flows through at a velocity of two–three knots. A large or medium sized vessel once committed to it lacks sufficient room to turn around, is unable to anchor in its deep waters and must keep on to the other end. Several submarine cables which cross this channel present a hazard to any ship attempting to anchor. Vessels can meet in the channel but, as a safety measure, must send out a security call by R/T before entering. Anchorage grounds are available near each end, permitting vessels to wait if adverse weather or poor visibility prevail. The Thousand Islands Bridge has a minimum clearance of 130 feet; at night, it is so well illuminated that a veil of light is created (called “curtain” by the pilots) which obscures objects immediately under or beyond the bridge, thus adding to the navigational difficulties. The *Brockville Narrows*, some 16 miles further downstream, are three miles long and, as in the Upper Narrows, any attempt to stop, turn or anchor is fraught with danger. A two–three knot current has a tendency to turn a downbound vessel to starboard and good speed is required to maintain control. Here, vessels must also send out a security call advising their intention to enter the channel.

Kingston is the only port in that section of the designated waters of District No. 1. Historically, Kingston was a transit port but this has been no longer so since the transit Seaway channel was relocated south of Wolfe Island.

Before the opening of the Seaway, the pilot boarding station was at Kingston and, hence, all vessels in transit which needed to embark or disembark a pilot had to pass by it.

Kingston is now for all practical purposes a port of Lake Ontario since its natural deep access lies on the Lake front. Only vessels drawing less than 22 feet can reach the harbour from the east, generally through the Wolfe Island Cut at the northeast end of Wolfe Island. The Cut is a channel three-quarters of a mile long, 500 feet wide and 23 feet deep which connects the Seaway, or South Channel, with the shallow Canadian Middle Channel and the eastern approach to Kingston. Upbound vessels of greater draught must, perforce, proceed past Cape Vincent around the west side of Wolfe Island and Simcoe Island in the undesignated, open waters of Lake Ontario and make their approach to Kingston from that direction. The western pilot station for District No. 1 is located at Cape Vincent on the United States side. (Vide pp. 137–8 re request to exclude the harbour from designated waters.)

The main part of the port of Kingston comprises several wharves of which the largest is situated in Cataraqui Bay. It has a berthing length of 700 feet and a depth alongside of 27 feet. Tugs are available if required for berthing or unberthing but are seldom used since there are few navigational difficulties.

(j) *Brockville to Prescott*

The port of Brockville is situated a short distance from the southern entrance to Brockville Narrows. A number of industries located in the town have their own wharves in the harbour but, since Seaway depth is not available, few ocean vessels call there.

There are no unusual navigational difficulties in this 12-mile stretch of the River. The Seaway channel is straight, wide and deep. Downbound vessels may be required by the Seaway traffic controller to anchor off Prescott, the last anchorage area before Iroquois lock. This will occur when traffic conditions at the lock prevent a vessel from entering on arrival and there is no position available at the wait wall.

(k) *Prescott to Snell Lock*

The distance involved is 43 statute miles. The Lower Lakes Terminal elevator (capacity 5,500,000 bushels) operated by the National Harbours Board is located at Prescott where large grain carriers may discharge grain for transfer and domestic use. Facilities are also available for loading grain in ocean vessels. Opposite Prescott, one mile across the River on the United States side, is Ogdensburg. The Prescott—Ogdensburg bridge which spans the River nearby has a minimum vertical clearance of 120 feet with 1,150 feet between its main piers.

Just below the Prescott—Ogdensburg bridge and all the way to Snell lock is the section (International Rapids Section) where the natural features

of the River were so drastically changed as a result of the construction during 1954–1958 of the St. Lawrence Seaway and Power Project. Two canals, one with one lock (Iroquois) and the other with two locks (Eisenhower and Snell), two control dams (Iroquois and Long Sault) and a 3,300-foot long, 32-unit powerhouse (Barnhart Island–Cornwall) were constructed; several miles of new 27-foot channels were cut, islands were either removed or sliced into fragments, towns relocated, new roads laid down, bridges erected and thousands of acres of land flooded to form a 25-mile long, four-mile wide power pool above the generating plants at Barnhart Island, raising the water level there to the level of Lake Ontario.

Associated with the construction of the Barnhart Island powerhouse are the two control dams referred to earlier, one at Iroquois and the other at Long Sault in the immediate vicinity of the powerhouse, which keep the level and outflow of Lake Ontario under complete control. Thus, Lake Ontario has become since 1960 the second of the Great Lakes (the other being Lake Superior) to have its level and flow regulated under the supervision of the International Joint Commission.

Iroquois dam and lock are at the head of the power pool, named “Lake St. Lawrence”, some 10 miles below the Prescott–Ogdensburg bridge. The channel connects with the single lock canal at Iroquois, enabling ships to by-pass the control structure. The lift through the lock varies from one half to six feet. Just below the lock, the flow through the dam creates a cross-current which, on striking the shore nearby, is diverted back across the channel. The velocity of this cross-current varies depending on the number and position of the sluice gates opened in the dam. Vessels both downbound and upbound experience this variation in the current and pilots and Masters are reminded of it each spring through a general Notice to Mariners.

Twenty-two miles below Iroquois lock is the three-mile Wiley-Dondero Canal with its two locks (Eisenhower and Snell), enabling vessels to by-pass the Barnhart Island powerhouse. The combined lift through these locks is 89 feet, 42 at the upper end (Eisenhower) and 47 at the lower end (Snell).

The Iroquois, Eisenhower and Snell locks, together with the Beauharnois, Côte Ste-Catherine and St. Lambert locks between Cornwall and Montreal, were all built at the same time during the construction of the St. Lawrence Seaway to replace the old 22-lock, 14-foot canal system between Lake Ontario and Montreal. They are similar in size (766' x 80' x 30') and can accommodate vessels up to 730 feet in length, 75 feet in width, and 26 feet in draught. With the exception of Eisenhower and Snell locks, which were built in United States waters and are under U.S. control (Saint Lawrence Seaway Development Corporation), the other Seaway locks were built in Canadian waters and are administered by the St. Lawrence Seaway Authority.

However, all vessels transiting these locks, including Eisenhower and Snell, are subject to the Seaway Regulations which were reviewed earlier (Part IV, p. 906).

(2) MARITIME AND PILOTAGE TRAFFIC

Maritime traffic in the Great Lakes system consists mainly of:

- (a) medium sized ocean-going vessels not exceeding 750 feet overall and 75 feet 6 inches extreme breadth;
- (b) lakers, i.e., vessels engaged in inland and coastal trade, not exceeding the same dimensions;
- (c) a few larger lakers in the upper part of the system;
- (d) a relatively small number of vessels not self-propelled, i.e., dredges, barges and scows with tugs.

In the lower part of the Great Lakes system east of Lake Erie, the largest vessels met are of the maximum permissible Seaway dimensions since access to this area can be gained only through the locks of the Seaway at one end and the Welland Canal at the other. Within Lake Ontario and the St. Lawrence River as far as the first lock, there is no shipping requirement that would warrant the use of larger vessels, which would be confined to these waters. However, the situation is different in the upper sector of the system where there is a requirement for large bulk carriers, especially for shipments of iron ore from the Mesabi Range mines through Lake Superior ports to United States smelting plants on the shores of Lake Michigan and Lake Erie. The factor which controls the size of these vessels is the dimensions of Poe lock, the largest lock at Sault Ste. Marie, which has been enlarged in recent years to 1,200 feet in length and 105 feet in width. These large vessels can not negotiate the Welland Canal and are restricted to the upper part of the Great Lakes system. They have only an indirect effect on pilotage since they are not required to employ a pilot and, in fact, do not do so, but their dimensions add to the navigational difficulties of ocean-going vessels meeting or overtaking them in narrow reaches and in channel bends.

Another controlling factor which particularly affects ocean-going vessels is the limited depth of the locks, canals and other dredged channels which limit the maximum permissible draught to 26 feet throughout (Part IV, p. 907). While new lakers have been designed to an optimum size within Seaway lock dimensions, ocean-going vessels must be designed primarily for ocean navigation, thus sacrificing carrying capacity, with the result that many of them which meet the permissible Seaway dimensions can not load as much cargo as lakers of comparable size and still remain within the permissible draught. The owners of ocean-going vessels planning trips through the Seaway must take into consideration three special factors: the likelihood of only a partial cargo, the delay and expense involved in topping up at Montreal or below

and the cost of compulsory pilotage. Under these circumstances it may be uneconomical to compete with lakers carrying full cargoes and free of pilotage charges, and the decision may be to proceed no farther inland than one of the several trans-shipment facilities along the St. Lawrence.

The forecast for increased future ocean-going traffic in the system is unfavourable because of the trend, greatly accelerated in recent years, to larger vessels.

Under the influence of these factors, the trade pattern of ocean-going vessels (which are the principal employers of pilots) and the operational procedures followed by owners underwent basic changes. The early rush to the Head of the Lakes slackened when the limitations of the system became apparent, while competition from lakers increased as they gradually adjusted to take optimum advantage of the Seaway. This exploratory stage was first followed by total or partial withdrawal. Some owners decided to load their ocean-going vessels, especially grain carriers, at deep water facilities served by lakers, thus allowing them to employ larger carriers. Partial withdrawal was also noticed in the general cargo field, particularly from 1967 on. Ocean-going vessels, rather than proceed west through the Seaway with small amounts of cargo, found it more economical to terminate their trips in Toronto and Hamilton and forward the small amount of cargo left by land, thus avoiding the Welland Canal with all the costs involved—Seaway tolls, pilotage fees, port dues, ship's time and general operating expenses. Also, in the general cargo field, the owners of ocean-going vessels changed their procedures in order to become more competitive: companies joined forces to pick up cargo for each other and formed consortiums. This meant fewer ships with larger cargoes and, at the same time, accessory costs (including pilotage) had to be paid only once. For the same economic reasons and in line with the general shipping trend, larger vessels gradually replaced the earlier smaller ones with a corresponding decrease in the demand for pilotage services.

Another development had its effect on pilotage, i.e., the rapid disappearance of British lakers whose place was partly filled by other foreign (not U.S.) vessels. Until the law limiting trade between Canadian coastal and inland ports to Canadian registered vessels was passed, a considerable proportion of this trade was handled by vessels registered in the Commonwealth. However, the Act could not prevent them from handling coastal and inland trade between Canadian and United States ports, and this explains why such a large number of British lakers were engaged in inland trade in the Great Lakes system after the opening of the Seaway. They felt discriminated against by the compulsory pilotage requirement since they were regular traders who did not need pilotage assistance, even in the confined waters of designated areas. These vessels took advantage of the partial relief available by having their officers pass oral examinations for undesignated waters and obtain "B" certificates. Moreover, whenever a shortage of pilots

developed, they were also obvious choices for waivers on account of their familiarity with the waters concerned and the ability of their officers to meet the radiotelephone requirement of fluency in the English language. When these vessels disappeared, they were replaced by other foreign vessels who, either because they did not trade regularly in the Great Lakes system or because their officers were not sufficiently fluent in English, did not take advantage of the "B" certificate procedure, with the result that pilotage assignments on the open waters of the Lakes increased. This strained the District pilotage service and was also wasteful of the District pilots' time. The situation was gradually corrected (although never completely) by appointing lake pilots in increasing numbers.

As early as 1963, it was noted that the traffic pattern had altered considerably, there being a marked decrease in the number of ships proceeding west of Port Huron as compared to the previous season, apparently as a result of the lessons learned during the first exploratory trips, e.g., stevedoring charges and tug charges in Chicago, plus additional pilotage and mileage to Lake Michigan ports, made most such ventures uneconomical. In 1964, the increase in the demand for lake pilots began to be felt because slightly more than fifty per cent of foreign ships lacked a "B" certificate. In 1965, the number of foreign ships engaged in Great Lakes trade increased but more noticeable was the increase in the number requiring lake pilots, especially in Lake Ontario since many did not proceed farther west. In 1966, the British seamen's strike eventually stopped all British ships for a period of time. In that year also, the number of foreign flag lakers was reduced to six from thirty-one during early 1965, resulting in a substantial decrease in waivers (468 in 1965 against 75 in 1966) and a steady increase in the number of ships requiring pilots in undesignated waters. In 1967, the trend to larger vessels and the gradual disappearance of smaller ocean vessels was particularly marked. Despite the general decline in ocean-going activities over the Great Lakes system, and, hence, in the District pilots' workload, the Lake Ontario pilotage demand was greater. However, many vessels formerly trading as far west as Detroit did not proceed beyond Lake Ontario but returned to sea from Toronto or Hamilton. In 1968, the volume of ocean traffic in District No. 2 continued to fall as far as the number of ships was concerned, but the aggregate tonnage exceeded previous years. There are various reasons for this decline, mostly falling grain exports and better organization by the shipping trade with the advent of consortiums. Pilotage traffic declined again in 1969.

No statistics have been kept in order to establish specifically the nature and relative importance of the various components of pilotage traffic in the Seaway. D.B.S. statistics divide vessels by country of registry or by origin and destination of cargo. Pilotage statistics in this connection mainly record the number of times pilots were assigned to vessels without distinction

between ocean-going vessels, Canadian and United States inland and coastal traders subject to compulsory pilotage and exempt or excluded vessels which nevertheless take advantage of the service. From the evidence received, it appears that the pilotage traffic is almost exclusively limited to ocean-going vessels with the occasional coastal and inland vessel which does not meet the exemption requirement, or which as a rule does not take a pilot but would do so in certain circumstances such as adverse weather conditions (vide pp. 103-4). By comparing Seaway statistics of maritime traffic passing through the approach to the Great Lakes system, i.e., the Montreal-Lake Ontario section of the Seaway, and Great Lakes District No. 1 pilotage trip statistics (observing that in the Snell lock-Cape Vincent section almost all traffic, except small vessels which do not take pilots, is in transit) it is possible to obtain a sufficiently accurate picture of the importance and composition of the pilotage traffic entering and leaving the Great Lakes system.

The following table shows for the years 1960-1969 inclusive the number of transits both upbound and downbound of vessels through the Montreal-Lake Ontario section of the Seaway, and from pilotage statistics the number of trip assignments performed in the international part of the same section, i.e., between Snell lock and Cape Vincent (hence excluding trips by District No. 1 pilots into the open waters of Lake Ontario). In each case the average GRT is also shown in order to indicate the trend to larger vessels and its importance.

Year	Seaway (Montreal-Lake Ontario Section)*				Pilotage (District No. 1)		
	Domestic		Overseas		Trips	Average	Tonnage
	Transits	Average Gross Tonnage	Transits	Average Gross Tonnage		Gross	Net
1960....	4,672	2,889.7	2,197	5,293.9	2,861	n/av.	n/av.
1961....	4,741	3,681.6	2,151	6,325.0	2,601	5,304	3,154
1962....	4,049	4,388.0	2,302	6,753.5	2,743	n/av.	n/av.
1963....	4,232	5,452.7	2,053	6,823.0	2,326	5,728	3,372
1964....	4,287	5,863.6	2,492	7,200.3	2,730	6,163	3,634
1965....	4,579	5,796.5	2,751	7,516.4	3,022	n/av.	n/av.
1966....	4,602	6,715.7	2,739	7,977.7	3,108	6,839	3,999
1967....	4,375	6,510.6	2,546	7,950.0	2,978	6,745	3,896
1968....	4,198	7,159.0	2,378	8,552.1	2,768	6,899	4,045
1969....	3,975	5,028.4	2,417	8,879.3	2,812	7,405	4,324

*Upbound and downbound combined, including tug and barge combinations assessed as one unit, and naval vessels.

SOURCES: *Seaway*: Exs. 475 and 1541 (b)—*Traffic Report of the St. Lawrence Seaway*, Part II, Table 4.

Pilotage: Ex. 1540(b)—computer statements of the Department of Transport, except for the years 1960, 1962 and 1965 which were taken from Ex. 534(b)—annual reports of the Pilotage Authority, the information being otherwise not available.

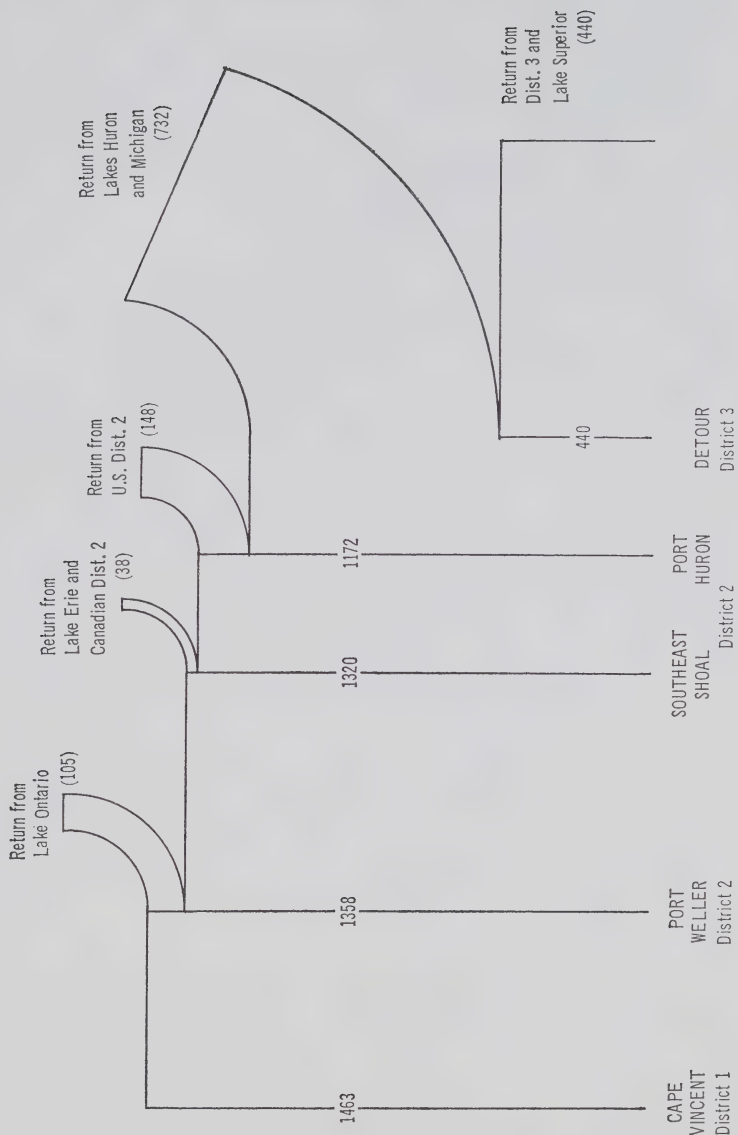
This table, *inter alia*, establishes the following facts:

- (a) The aggregate transit through the entrance sector of the system by lakers had decreased in 1969 by fifteen per cent since 1961; the average gross tonnage by lakers had increased by seventy-four per cent during the same period. This is the result of the gradual replacement of the pre-Seaway canalers by lakers designed to optimum size for the locks, and the ever-increasing aggregate cargo transported by them which has resulted in keeping their number approximately the same despite their large increase in size.
- (b) By contrast, ocean-going vessels have increased both in number (ten per cent) and in size (seventeen per cent). The increase in number, which reached a peak in 1965 and 1966, has steadily declined since then under the adverse impact of strikes that affected ocean-going traffic directly or indirectly in latter years, and also the other disadvantages ocean-going vessels experience as a result of the physical and economical limitations of the Seaway system and the cost of pilotage. Their average size, which is and always has been larger in any given year than the average size of the lakers, does not show the same steep growth, since very few ocean-going ships were small enough prior to the opening of the Seaway to proceed through the fourteen-foot locks and canals and, hence, ocean-going traffic since the opening of the Seaway has been composed of relatively large vessels.
- (c) The ratio between lakers and ocean vessels has generally averaged two to one.
- (d) The number of pilotage trips exceeds the number of transits by ocean-going vessels. The explanation is that some Canadian and U.S. vessels, whether exempt or not, employ pilots. This is further confirmed by the average GRT of vessels piloted, i.e., between the average GRT of ocean vessels and lakers.

Many ocean-going vessels will not proceed past Lake Ontario and the importance of this traffic tapers off to the west. This has become more accentuated as the operators gain experience. Additional factors are the cost for ocean-going vessels to operate through the system, and the increased competition by lakers. By contrast, laker traffic increases considerably above Lake Ontario on account of the importance of inland trade, mainly between U.S. ports on Lake Erie, the Detroit River and Lake Michigan with Lake Superior ports.

The following graph, which appeared as an appendix to the 1966 "Statistical Report Great Lakes Pilotage", shows the spread for that year of the ocean vessel trade in the Great Lakes system. It is based on the

Number of Vessels Upbound, Passing Pilot Stations With Pilots on Board



pilotage records of upbound vessels at the control points for such traffic, i.e., the upstream pilot station for each District.

The data on the graph, when shown in per cent, indicate that in 1966 the ultimate destinations of ocean vessels on the Great Lakes were:

(a) Lake Superior ports	30.1 per cent
(b) Lake Huron and Lake Michigan ports	50.0 per cent
(c) Ports in the western sector of Great Lakes District No. 2, i.e., situated in the western part of Lake Erie and on the Detroit and St. Clair Rivers	10.1 per cent
(d) Lake Erie and Welland Canal ports	2.6 per cent
(e) Lake Ontario ports	7.2 per cent

The "Statistical Report Great Lakes Pilotage" (Ex. 1542), referred to earlier, is an annual report published jointly since 1964 by the United States and Canadian Great Lakes Pilotage Administrations. In addition to statistical data for the year concerned, this report contains a number of cumulative tables showing comparative yearly data, in most cases as far back as 1961. The 1968 version of the report is reproduced *in extenso* as Appendix A to this Report.

A word of caution is indicated as to the informative value of certain data since a number of tables have been devised in relation to an organizational arrangement which no longer exists, e.g., these statistics make no reference to the two groups of lake pilots. According to the original plan, there were to be only three groups of pilots—one for each District—with the demands in undesignated waters being handled jointly by the pilots of the adjacent Districts in addition to their respective in-District work. This soon proved to be prejudicial to the efficiency of District operations and, as early as 1962, lake pilots were appointed and have gradually relieved Districts Nos. 1 and 2 pilots of most, if not all, of pilotage in undesignated waters. Not only is no separate mention made of the workload and pilotage revenue of lake pilots, but these data have been integrated with those of Districts Nos. 1 and 2 pilots. The result is a most misleading picture of the real situation.

In the joint annual report, the only references to the lake pilots are Tables 2, 5(a) and 5(b) of Part I dealing with "Registration of Pilots" where they are referred to under the misleading name of "applicant pilots" (p. 184).

Further difficulties arise because the terms used are not defined in the statistical report, despite the fact they are not used in their natural meaning. In addition to the term "applicant pilot", there is, for instance, the term "assignments" which not only refers to "despatches" (trips, movages and cancellations) but also to parts of single trip assignments. For example,

prior to 1969, the despatch of a District No. 2 pilot who remained with a ship for a transit between lock 7 in the Welland Canal to Detour or Chicago was counted as four assignments, i.e., each sector of designated and undesignated waters *en route* being counted as a separate trip.

Most of the missing information on pilotage data is contained in the machine data statistics kept by the Department of Transport (Ex. 1215), except for the first years, and on which the annual joint statistical report is mostly based.

The assignment figures are not really indicative of the actual pilotage workload for two reasons: substantial differences in the nature, length and duration of assignments and changes in despatching procedures. For instance, there is no comparison between a trip, a move and, particularly, a cancellation. Fortunately, the incidence of moves and cancellations in all sectors is so small as to be negligible. The despatching procedure for District No. 1 has remained basically unchanged since 1961. Since the great majority of in-District trips assigned are full transits, the assignment statistics for this District would be sufficiently informative on the basis of in-District assignments alone. However, this is not true in the other sectors of the Great Lakes system because assignments there vary greatly both in length and duration, especially in District No. 2 where the despatching procedure has often been changed radically, e.g., the mandatory change point at lock 7 in 1963 makes a transit of the Welland Canal show as two assignments instead of the previous one. Because there are a number of important intermediate ports in the District, such as Detroit and Toledo, many trip assignments are only partial transits. For a study of the difference in length of the various trips in each sector, vide "Workload".

There is no systematic record of the use being made of the service by vessels not subject to Great Lakes pilotage legislation, or by those who enjoy an indirect exemption in undesignated waters because of the presence on board of a "B" certificate-holder. The incidence is very small as indicated by the count made by the Department of Transport at the Commission's request, resulting in the following figures as to the number of times District No. 1 pilots were employed by vessels exempt from pilotage requirements on in-District and Lake Ontario assignments (Ex. 839). The list, which is here reproduced *in extenso*, illustrates the difficulty of interpretation arising from the differences in the texts of the Canadian and United States Acts with regard to exclusions and exemptions (pp. 32 and ff.). In these statistics, the expression "exempt from pilotage requirement" was interpreted according to the United States Act since, under Part VIA C.S.A., warships and Canadian and United States Government vessels are neither excluded nor exempt, while the U.S. Act applies only to commercial vessels.

Study of Pilotage in Great Lakes System

	1961	1962	1963	1964
CANADIAN VESSELS				
Ahern Steamships Limited.....	4			
Algoma Central Railway Company.....	28	23	16	27
Bayswater Shipping.....		1		
Branch Lines, Sorel.....	16	2		18
British American Oil.....	8	5	5	5
Canada Cement Transportation Co.....	10	8	6	12
Canada Steamship Lines.....	10	1		
Canadian Oils Ltd.....		3	1	
Department of Mines (Federal).....			2	
Department of Transport (Federal).....			1	
Hall Corporation.....	3		2	
Holden Sand & Gravel Co.....	1			
Imperial Oil Limited.....	1	1	17	
J. P. Porter.....				3
K. A. Powell, Fort William.....	2		1	1
Law Quarries Transport Co.....		28	10	
N. M. Paterson & Sons.....	42			
Quebec & Ontario Transportation Co.....	9			
Royal Canadian Navy.....			10	3
Shell Oil of Canada.....			1	
Texaco Oil, of Canada.....	6	4		
Valley Camp Coal.....				2
Total Canadian Vessels.....	140	76	72	71
UNITED STATES VESSELS				
American Oil Company.....		27	15	20
Cleveland Tankers.....	2			
Gulf Oil.....		19	7	20
Marquette Enterprises.....			2	
Meritt Champman Scott.....				4
Oglebay-Norton Company.....			6	7
Socony Mobil Oil.....	2			
Standard of Indiana.....	6			
Texaco Indiana.....	1			
Texas Oil of Indiana.....			6	
United States Army.....				1
United States Navy.....			1	8
U.S. Steel.....		2		
Total United States Vessels.....	11	48	37	60
OTHERS				
French Navy.....	n/av.	n/av.	2	
German Navy.....	n/av.	n/av.		3
Norwegian Navy.....	n/av.	n/av.		2
Royal Navy.....	n/av.	n/av.	3	
Total Others.....			5	5
Grand Total.....	151	124	114	136

SOURCE: EX. 839.

(3) AIDS TO NAVIGATION AND MAINTENANCE OF THE CHANNEL

As indicated earlier, the St. Lawrence/Great Lakes ship channel follows the natural waterway except where improvements, such as canals or locks, are required to facilitate navigation, and these aids are created as dictated by the physical features of the channel without regard for the nationality of the waters concerned. Although at first sight it would appear that the only effective way of improving and maintaining the channel, establishing and maintaining the necessary network of land-based and floating aids to navigation and obtaining the required co-ordination would have been to entrust the task to an international joint commission, the same result was attained instead by co-ordination at the administrative level, with each country assuming full responsibility for the part of the channel lying on its side of the boundary line, and by joint planning and effort. An example of such co-operation was the improvement to the channel between Lake St. Clair and the St. Clair River. The Southeast Bend Cut-off Channel was initially dredged by the United States Corps of Engineers to by-pass the curving St. Clair Flats Canal, mostly situated in United States territory; the maintenance of the new channel is now the responsibility of the Canadian Department of Public Works (Ex. 1084).

Apart from the question of the adequacy of radio communications which are studied later, no complaints were voiced by the pilots with regard to the extensive, sophisticated network of aids to navigation throughout the system.

The responsibility for navigational aids in the Canadian part of the system is shared by the St. Lawrence Seaway Authority and the Department of Transport through their Marine Agents. The Department of Public Works, through their District Engineers, is responsible for soundings and channel maintenance. As elsewhere, aids to navigation include radio shore aids, fog signal devices, lighted and unlighted floating aids, shore-based lights and, where appropriate, range lights. Every three weeks during the navigation season, the maintenance crew inspects all shore aids and vessels check floating aids. The Agents are assisted by a research team which is continually striving to improve aids to navigation. It works closely with the National Research Council and the United States Coast Guard. Shipowners are regularly consulted before any proposed change is effected.

Wolfe Island Cut Dispute

It is worth noting in the pilotage context the background of the limited improvements made to the Wolfe Island Cut. Prior to the opening of the Seaway, when Kingston harbour was part of the transit route and also the boarding area for both Kingston District pilots and Great Lakes Sailing Masters, the Cut was the normal access to the harbour from the east.

On February 20, 1957, the Corporation of the St. Lawrence-Kingston-Ottawa pilots requested that the Cut be dredged to Seaway depth. The proposal, which was approved by the Department of Public Works, called for a 5,000-foot long, 400-foot wide and 27-foot deep channel at an estimated cost of \$1,221,348.50. The project was turned down by Treasury Board as not economically justified. Later, two more submissions were put forward by the Department of Public Works; the first, dated March 6, 1961, changed the proposed channel to a length of 3,875 feet with a width of 450 feet and a depth of 20 feet. This submission was returned to the Department and was submitted again on April 17, 1961, on the basis of a shorter channel, i.e., 3,580 feet, but with the same width and depth. This item was accepted by Treasury Board and included in the estimates of the Department of Public Works in the amount of \$480,100. The works, which were completed July 16, 1962, actually produced a channel 3,970 feet long, 450 feet wide and 23 feet deep.

For maritime traffic in transit through the waterway, it was not realistic to require vessels to detour through a crooked channel and pass through Kingston harbour for the sole purpose of changing pilots when this could be more conveniently done (although on account of the narrowness of the channel, not as safely when adverse conditions prevail because vessels risk grounding if speed is reduced below steerage way) by following the main through channel between Wolfe Island and the United States mainland. In 1961, the pilot boarding station was relocated and the huge expense of dredging the Cut to Seaway depth was then no longer justifiable.

(4) RADIO COMMUNICATIONS

The Great Lakes system has ample shore-based medium frequency radio stations providing full coverage for ship-to-shore communications. These stations are available for both safety broadcasts and public correspondence. In addition, certain sectors of the system and some ports provide VHF coverage restricted to safety and operational traffic. Because of limited range, VHF communications do not exist and can not be established on the open waters of the Lakes for ship-to-shore traffic, except when vessels are close to shore. On account of its narrowness, Lake Erie is an exception since the regular shipping lanes are always within VHF range of the shore and contact can be maintained with the recently established network.

At the time of the Commission's hearings, the pilots made a number of complaints about areas where radio communications were poor and even non-existent. In District No. 1, they complained that there were two or three dead spots depending on weather conditions, particularly beneath the Thousand Islands Bridge and near transmission cables. In District No. 2, they reported that radio communications on Lake Michigan and Lake Huron

were bad, particularly between Mackinac Bridge and Lansing Shoal. They stated that within 30 miles of shore-based radio stations it is at times impossible to make contact by radiotelephone, probably due to atmospheric conditions. In Georgian Bay, blind spots were experienced at the entrance and ships entering could not report until they were half-way down the bay. This latter problem was solved by establishing at Wiarton a station which now covers the area adequately. Communications around Detour on the St. Marys River were not good, mostly due to technical difficulties when the station was located inside the city, but it was moved to a new location at the airport near Gros Cap and coverage has since been satisfactory. The same problem arose at Thunder Bay but conditions improved when the station was moved to the airport at the former city of Fort William. There is a sector in the centre of Lake Superior where radiotelephone contact can not be established with Canadian stations. The Telecommunications and Electronics Branch of the Department of Transport stated that they were trying to correct the situation by using more powerful sets and improving their location. There were also several blind spots in Lake Superior near Passage Island, Hare Island and close to Duluth and also in the St. Marys River between Pike Island and Lime Island, mostly due to atmospheric conditions.

There are no longer such problems in the sectors of the Great Lakes system covered by the St. Lawrence Seaway since the establishment of the Seaway Marine Traffic Control with its VHF network. Substantial improvements have also been made in medium frequency radio communications in the rest of the waterway, including the open waters of the Lakes.

(a) *Mandatory Use of Radiotelephone for Navigation Purposes*

The navigation rules and procedures in the Great Lakes system, i.e., on the St. Lawrence River west of the harbour of Montreal and on the Great Lakes, including their connecting channels, differ basically from general international practice on account of the mandatory use of radiotelephone for safety communications and navigational procedure.

Disregarding port-operated VHF stations, radiotelephone requirements in the Great Lakes system may be divided into two categories:

- general requirement applicable over the whole of the Great Lakes system, including the Cornwall Pilotage District, where medium frequency radiotelephone equipment is mandatory and is mainly used by vessels to keep abreast of safety broadcasts, to obtain safety information when needed and for ship-to-ship safety communications;
- regional VHF requirements applicable only to those parts of the Great Lakes system, including the Cornwall District, where

VHF radiotelephone is also used to obtain traffic information required for planning Seaway and pilotage operations and to transmit operational instructions to vessels in the Seaway or about to enter it.

(i) *General requirement: "Promotion of Safety on the Great Lakes by Means of Radio"—1954 treaty*

Radiotelephone equipment and its use ship-to-ship and shore-to-ship for safety communications has been mandatory for all vessels on the Great Lakes and the St. Lawrence River west of Montreal since November 13, 1954, when the agreement between the United States and Canada entitled "Promotion of Safety on the Great Lakes by Means of Radio" (Ex. 1402) became effective.

This requirement, which necessitates that radio communications be carried out in the English language, together with differences in navigational procedure resulting from special rules of the road for the Great Lakes have been the main grounds for United States insistence on the imposition of partial compulsory pilotage in the open waters of the Great Lakes.

It is on the Great Lakes that the first coordinated radiotelephone system with a common contact and safety distress channel was established. This was in 1936 following the private initiative of the Lake Carriers Association. They received the cooperation of all interested parties, including the United States Coast Guard and the Canadian Department of Transport. Almost all vessel operators recognized the advantages of an efficient communications system for safety information and participated on a voluntary basis. The experiment was successful and convincing and resulted in the 1954 treaty between Canada and the United States, followed by parallel enabling legislation enacted by each country. In Canada, this took the form of an amendment to sec. 411 C.S.A. and Part III of the "Ship Station Radio Regulations" (P.C. 1956-192, Ex. 492). Ships navigating west of Montreal are required to carry and operate while in the Great Lakes system a medium frequency radiotelephone and must have on board certified radiotelephone operators who, among other qualifications, are fluent in English. In addition, most vessels also carry VHF radiotelephone equipment which is mandatory if they are proceeding through the St. Lawrence Seaway. The radiotelephone controls must be on the bridge so that messages from shore stations or other vessels can be clearly heard by the officer or pilot in charge of the navigation of the vessel, and also so that this officer or pilot can conveniently use radiotelephone whenever necessary. While the vessel is under way, the radiotelephone is to be constantly monitored on the listening channel on which all the safety information, security calls and distress signals are made. If the ship carries a VHF set in addition, both sets are to be kept open on their own listening frequency. While ship-to-shore communications can

generally be effected only on medium frequency, in the open waters of the Lakes, VHF is preferred for ship-to-ship and close range ship-to-shore communications because its short range permits clear conversations free of interference.

The network of ship and shore stations is essentially an aid to navigation which was devised for ships' use and benefit. The United States Coast Guard and the Department of Transport use the listening frequency for their weather and safety broadcasts which are made at regular predetermined intervals and at any time an emergency arises. The listening frequency is mainly used by ships for ship-to-ship communications. Every officer or pilot in charge of navigation when entering a port or leaving a berth and/or port gives a security call announcing his expected arrival, departure or intention, and every vessel in the vicinity is then on the alert. The security call is also given before a ship enters blind turns on the St. Lawrence River or in the connecting channels and other congested waters. It is extensively used for ship-to-ship conversation to arrange for meeting or overtaking. Experience has proved that RT is a valuable adjunct to radar and assists navigating officers to plan their meeting after they have observed each other on the radar screen, particularly when visibility is reduced.

This requirement, which used to be a distinct peculiarity of navigation on the Great Lakes, has since gained acceptance as a world-wide practice, and was even sanctioned by an IMCO international convention in 1968 (Part IV, pp. 180-181).

It will soon become a general mandatory requirement for all Canadian registered vessels to carry radiotelephone equipment and use it for safety purposes, whether navigating in or outside Canadian waters, and for all foreign vessels while navigating anywhere in Canadian waters. The 1968 IMCO agreement was implemented by Canada in 1969 (17-18 Eliz. II c. 53) by an amendment to sec. 411 C.S.A. which, when it becomes effective, will prevent the navigation of a Canadian ship in any waters, and of any ship in Canadian waters, unless she is fitted with radio installations complying with regulations to be made and has on board operators in the number and with the qualifications prescribed by these regulations. Sec. 411 C.S.A. as amended is to come into force when proclaimed. This will occur as soon as the required regulations have been drafted, which will shortly be the case.

(ii) *Regional requirements: St. Lawrence Seaway "Marine Traffic Control and Information Service" and "Marine Information Ontario"*

Since the opening of the Seaway in 1959, it has been mandatory for ships using the Seaway to carry VHF equipment and the use of VHF radiotelephone has been an integral part of Seaway operational procedures.

Radiotelephone, however, was used merely to provide a means of communication between Seaway operators and ships in the system. In 1968, in an attempt to improve the efficiency of Seaway operations, the Seaway Authority established a traffic control system modelled on the Marine Traffic Control System which the Department of Transport has established on the St. Lawrence River between Sept-Iles and Montreal. Its VHF network covers the area from Montreal, where it hooks up with the D.O.T. St. Lawrence River system, through Lake Ontario to Long Point in Lake Erie. At that end it also makes contact with *Marine Information Ontario*, a traffic information system which the Department of Transport has established on the Canadian side of Lake Erie between Long Point and Southeast Shoal. The Seaway control centres at St. Lambert and St. Catharines and the D.O.T. information centres at Montreal and Port Weller exchange all relevant information so as to provide an uninterrupted up-to-the-minute picture of maritime traffic moving in the entire area from Sept-Iles to Southeast Shoal, and to enable Seaway operators and pilotage despatchers to plan their respective operations.

The establishment of these systems has also made it possible to improve the efficiency of pilotage despatching by providing despatchers with advance information on requirements, with complete traffic information enabling them to appraise the demand long before requests are received and with ships' ETA's at boarding stations. Pilotage radiotelephone stations could then be shut down, with ships under way being required to forward all pilotage messages through the VHF network. To promote efficiency further, all requests for pilotage service which can not be transmitted via the VHF system must be routed through the systems' information centres by land telephone or by coastal radio stations, thereby enabling pilotage stations to obtain from a single source all details of expected ships' movements and pilotage requests, i.e., the information they require to plan and effect the despatching of pilots.

(b) *Seaway Marine Traffic Control and Information Service*

The system (for operational details, vide Seaway Notice No. 2, 1970 (Ex. 1541(j))) operates the same way as the St. Lawrence River Marine Traffic Control System (vide Part IV, pp. 180 and ff.). In order to reduce radio traffic on the main channel and to restrict information and instructions of a local character to where they apply, the system for the radiotelephone operation is divided into seven "control sectors" (not counting the separate branch of the Seaway at Sault Ste. Marie), each with its own listening frequency; all ships while within a sector must keep their VHF radiotelephone open on the listening frequency and must switch to the listening frequency of the next centre when entering it. The Seaway's Notices to Shipping and weather information are broadcast at regular intervals and immediate warnings are given whenever an emergency situation

arises. While the immediate instructions regarding lockage operations are transmitted through a system of visual signals, a number of instructions that are necessary in the planning of these operations need to be transmitted to ships before they reach the lock; for instance, when there is no berth at the wait wall for the incoming ship she will be contacted by the Seaway operator concerned and instructed either to slow down, if the delay is expected to be of short duration, or to anchor in the last anchorage area before reaching the lock; in case of small ships, double lockage will be arranged through radiotelephone if at all possible and this may mean requiring a small ship to precede a larger ship.

All ships as they proceed through the system are requested to report as they pass the various check points by identifying themselves and stating their ETA at the next check point, their immediate destination and whether or not pilotage service is required at the next boarding area. Ships are requested to correct their ETA whenever it becomes apparent that it will be in error, plus or minus, by at least 30 minutes. They are also required to describe the weather conditions prevailing then at the check point or that they have met in the sector, together with any information that may affect the safety of navigation; in case of an emergency concerning safety, ships are required to transmit the information as soon as it comes to their knowledge. Ships departing from a berth elsewhere than in Lake Ontario or Lake Erie are required to give a minimum four-hour advance ETD, their ETA at the next check point, their pilotage requirement at the next pilot boarding station and their destination; similar reports must be given by vessels immediately after leaving a lake port. This information enables the Seaway Authority to prepare its safety and weather broadcasts and plan operations at the various locks so as to achieve maximum possible efficiency.

The information so obtained from vessels is passed to the pilotage station concerned so as to enable the despatchers to plan pilotage operations and make sure that ships will not be delayed because pilots are unavailable when they arrive at the boarding station. Here again, the procedure is the same as the one now in force on the St. Lawrence River, i.e., details of pilotage requirements have to be transmitted through the system when passing certain check points as indicated in the applicable Notice to Mariners and it is then the responsibility of the despatchers concerned to determine the time the pilot will be required at the boarding station to meet the ship. This he will do on the basis of the information transmitted to him by the information service of the system as to the progress of the ship throughout the Seaway.

The ship's VHF set is also used for ship-to-ship communications. As in the rest of the Great Lakes system, the radiotelephone is used to give security calls whenever a ship comes to a sharp turn in the channel or in places where the practice is not to meet. Security calls are also given

when fog prevails. The radiotelephone is also used by ships to arrange procedures for meeting and overtaking.

(c) Marine Information Ontario

With the 1969 navigation season the Department of Transport established for the Canadian waters of Lake Erie between Long Point and Southeast Shoal a marine traffic information service with the same procedure but limited to obtaining traffic information and pilotage requirements (Ex. 1541(i)).

The information centre, situated at Port Weller, is referred to as "Marine Info Ontario". The system is also based on VHF radiotelephone communication and operates on channel 12. The network is composed of a shore station located at Port Weller which controls peripheral satellite stations located on the Canadian shore of Lake Erie at Port Burwell and Leamington through which all messages pass. Upbound and downbound vessels are required to report on VHF channel 12 when passing the following calling-in points: Long Point light, a line joining Port Stanley and Ashtabula, and Southeast Shoal light buoy; upbound ships are to give their name, location and ETA next calling-in point or port of destination, whichever is the earlier. At Southeast Shoal calling-in point a ship proceeding past Detroit is required to give its ETA at the Detroit pilot change-point. Downbound vessels are required to give the same information and, in addition, to state at Southeast Shoal calling-in point, if making a Welland Canal transit, their ETA at Port Colborne and their pilot requirement there, any pilot requirement to be reconfirmed at the Long Point calling-in point. Vessels requiring a pilot at Port Colborne when downbound and unable to give 12 hours' notice of their ETA through the VHF system are required to send their pilotage requirement to Marine Info Ontario by commercial means.

There is no sanction provided at present for not complying with Marine Information Service requirements but vessels not reporting at the designated points and in the prescribed manner are warned that they may experience delays.

The purposes of the service are defined in the Notice to Mariners describing it (Notice to Mariners No. 23, '70 Annual Edition) as follows:

- to provide information for despatching pilots;
- to give the Seaway Authority as much advance notice as possible about the approach of vessels from the westward;
- to provide information to agents and the general public regarding vessels in the system.

An additional safety benefit results from the fact that ships are making their presence and intentions known and become aware of similar information from other ships navigating in the area.

Radiotelephone communications with shore stations are restricted to messages concerned exclusively with Seaway and pilotage operations and marine safety. No duplex facilities are provided and public correspondence and domestic messages are not accepted.

(5) ST. LAWRENCE SEAWAY REGULATIONS

The St. Lawrence Seaway Authority has made regulations setting forth, *inter alia*, the mandatory equipment and structures ships must possess to be allowed into the Seaway, lockage procedure and speed limits. For a brief review of these regulations and of the problems concerning navigation in locks and canals, reference is made to Part IV, pp. 906 and ff.

Speed limits are generally imposed for the protection of shore installations and to prevent shore erosion. Pilots and mariners in general are repeatedly warned against exceeding the prescribed speed limits. Notice to Mariners No. 31, '70 Annual Edition, under the heading "Navigation on the St. Lawrence River above Quebec and on the Great Lakes" contains the following caution:

"Damage caused by excessive speed—Caution

Since the opening of the St. Lawrence Seaway there has been an increase in damage ashore resulting from the passage of ships. This includes damage to beaches, wharves, boathouses, small boats and other property including land erosion. There has also been serious risk to lives of small children on or near beaches.

Masters and owners of ships may be subject to Court action for damages sustained by property owners as a result of wave disturbance caused by the passage of their ships. The size and intensity of waves at any given speed vary with the hull form and draft of individual vessels, and regulations designed to eliminate the possibility of this damage would require a speed limit sufficiently low to prevent damage by any type of ship. This can be avoided if masters, who know best the characteristics of their own ships, will moderate the speed of their ships as necessary, particularly when channels are close to the shore."

The Notice to Mariners then lists the points where special caution should be exercised and refers those concerned to publications in which specific speed limits are described.

Following complaints by shore residents about alleged damage that could have been done by the wash of speeding vessels, speed limits have been strictly enforced in District No. 1. Pilots found at fault were warned and some were even prosecuted in court. The enforcement of these speed regulations has resulted in a substantial increase in the average transit time in District No. 1 (Ex. 843).

(6) RULES OF THE ROAD FOR THE GREAT LAKES

This subject is studied in Part IV, pp. 927 and ff., to which reference is made.

(7) SHIPPING LANES

The Dominion Marine Association, in co-operation with the Lake Carriers Association, has been instrumental in establishing separate shipping lanes or courses on the open waters of all the Great Lakes. These courses have now attained semi-official status; they are shown on all navigational charts as suggested courses.

This initiative has greatly enhanced the safety of navigation in the open waters of the Lakes by reducing the possibility of ships meeting at close quarters (hence, of collision) when navigating these waters.

This procedure, which used to be considered a special feature of navigation on the Great Lakes, is now being extended the world over wherever practicable and desirable. Through the Inter-governmental Maritime Consultative Organization (IMCO), international routing provisions have been introduced in many parts of the world so as to increase safety at sea and reduce the risk of large scale pollution. For details of IMCO's ships' routing provisions, vide Notice to Mariners No. 22, '70 Annual Edition.

(8) RADAR

The pilots have stated that radar is a great safety factor, not only in the open waters of the Lakes but also in the connecting channels. Before the advent of radar, when fog prevailed in restricted areas pilots had to berth or anchor until visibility improved; they may now proceed, despite poor visibility, with the aid of radar. A further aid is the availability of radiotelephone which permits them to enter into radio contact with the target appearing on the radar screen, make known their presence and arrange for meeting.

2. NATURE OF PILOTAGE SERVICE

When the term "pilotage" is used with reference to the Great Lakes system it has a much wider connotation than previously in Canadian legislation before the enactment of Part VIA C.S.A. (vide meaning of the term "pilot", Part I, pp. 22-23). In particular, a distinction must be made between pilotage in designated and undesignated waters and consideration must be given to port pilotage, which is not provided for as such in Part VIA.

(1) DESIGNATED WATERS PILOTAGE

Pilotage in designated waters, i.e., in the confined areas of the Great Lakes system, is pilotage in the Canadian meaning of the term: a service to assist Masters who lack the necessary local knowledge and experience furnished by fully qualified mariners who are expert in the navigation of local confined waters and do not become members of a vessel's complement while rendering their services.

By contrast with Part VI, Part VIA C.S.A. leaves no ambiguity about the status of such a pilot and his function on board: he is not merely an adviser on local matters but the navigator of the vessel. In designated waters, the Master commits the statutory offence of sec. 375D if he navigates his vessel himself or if he permits it to be navigated by anyone other than an official pilot registered for the waters concerned, whether or not there is a registered pilot on board. The local pilot must be the ship's navigator. The corresponding provision in the United States Act carries a qualification which does not alter the requirement, namely, the registered pilot "shall . . . direct the navigation of the vessel in those waters" and this "subject to the customary authority of the Master". This qualifying phrase does not give any authority to the Master over the professional actions of the pilot but the Master remains in charge of the vessel and the pilot becomes his servant as the ship's navigator only with reference to when and where to navigate the ship but not how this should be done. This does not prevent the Master from intervening in case of an emergency and taking over from the pilot if it is his opinion that for any reason the pilot is no longer fit to navigate the ship, e.g., physical unfitness due to sudden illness or drunkenness, or moral unfitness as demonstrated by reckless navigation and outright violation of the normal rules of prudence and seamanship or of the Rules of the Road for the Great Lakes. Such an emergency would occur when the ship's safety is endangered, thus exempting her from the compulsory pilotage requirements while the situation lasts (subsec. 375B (4)(b) C.S.A.; subsec. 8(b) United States Great Lakes Pilotage Act).

Designated waters consist essentially of the confined waters in the connecting channels between the Great Lakes, and in that portion of the St. Lawrence River between Lake Ontario and Cornwall. The confined waters of Great Lakes ports, irrespective of their navigational difficulties, have not been made designated waters as such. If some ports are included in the designated waters, it is because they happen to be situated within District boundaries or have been included within these boundaries to serve as pilotage boarding areas. Hence, designated waters pilotage, or as it is often called "in-District pilotage", is mainly river and canal pilotage and shiphandling in locks.

The required *expertise* for in-District assignments consists, first, of local knowledge and experience, then, principally of skill in navigating ocean-going vessels in the close quarters of narrow canals and channels through traffic, often under adverse weather conditions, and in piloting these vessels in and out of locks. Nowhere throughout the designated waters of the waterway is there any highly difficult situation created by physical features nor are there any strong currents and cross-currents such as those, for instance, in the Pilotage District of Montreal, especially in the harbour of Montreal. Except for weather conditions, the navigational situation does not vary to the extent that up-to-the-minute knowledge of local conditions is required, as is the case

in other pilotage areas, e.g., where tide is a factor. The local conditions that affect navigation are mostly constant in nature and are well described in the sailing directions and clearly indicated on charts. The rare changes are brought to the attention of all mariners through safety radio broadcasts and Notices to Shipping. Furthermore, the canals and channels are provided with a highly sophisticated network of aids to navigation, including radio beacons, so that the necessary local knowledge is relatively easy to acquire.

The art of navigating at close quarters and of shiphandling in the locks is not part of local knowledge but is a special skill which can neither be acquired nor maintained except through experience and continued practice.

In this situation it is a realistic feature of Canadian and United States Great Lakes legislations that the vessels which are identified as a group as regular traders in the Great Lakes system, i.e., United States and Canadian lakers, should be excluded from the application of the legislation and, hence, not affected by the pilotage requirements. After a few transits under the guidance of officers already familiar with local features and peculiarities, new officers in such lakers will soon be familiar with the few physical features likely to create difficulty *en route*. Ability to navigate his ship through narrow channels and canals and to handle her in the locks are qualifications a laker Master or officer must possess. Furthermore, since lake ships are constructed for this type of navigation, they are highly manoeuvrable in confined quarters.

Although local knowledge, especially in the St. Lawrence sector of the system, can be easily obtained, it remains a safety prerequisite. Navigational conditions were much more difficult in the Montreal/Kingston sector prior to the opening of the Seaway for there were many currents and rapids and approximately three times as many locks. The improvements resulting from the construction of the Seaway have made transits simpler and safer. However, all laker companies ensure that their vessels are navigated by officers with the necessary local *expertise* and a local pilot is employed for occasional trips through unfamiliar waters. For regular transits, however, some companies have organized their own pilotage system through what are called "relief Masters" who work under a special time agreement for seamen in the home-trade, inland or minor waters of Canada under secs. 172 and 173 C.S.A., and are employed for a named list of ships, all under the same ownership. To all intents and purposes they are company pilots. They are also used for training junior officers to acquire the necessary local *expertise*.

The safety record of these ships has proved that it is proper to exclude them from the application of compulsory pilotage. In the circumstances, compulsory pilotage would not only be unnecessary but might even be contrary to the interest of safety of navigation because the Masters and officers of lakers should normally be more competent than the pilots to navigate their own

ships in waters with which they are familiar and manœuvre them at close quarters, since long association has made them familiar with their characteristics, peculiarities and manœuvrability.

Occasional traders, especially ocean-going vessels, are in a totally different situation. In this connection, objection may be raised to the advisability of the general exclusion in the United States Act of all non-commercial vessels, thus leaving to the Masters of these ships the sole responsibility for deciding whether or not they can be safely navigated by their own officers in difficult situations. Another objection might be the lack of flexibility in the compulsory pilotage requirements as far as designated waters are concerned in that they do not provide any exemption for vessels whose officers possess the necessary qualifications to navigate their ships safely in those waters (personal exemptions, generally referred to as "B" certificates, as authorized by the Canadian and United States Acts apply only to undesignated waters). The administrative exemption the Minister of Transport is authorized to grant under Part VIA C.S.A. is not recognized in the United States legislation and, therefore, would have only limited application. In designated waters, it could apply only to ships' movements wholly in Canadian water—in practice, only Kingston, Sault Ste. Marie and the Welland Canal. In fact, this administrative power is never used for this purpose and serves merely to overcome disparity with the United States as regards categories of ships excluded from the application of the legislation (pp. 7 and 33).

This situation has resulted in the unnecessary imposition of a pilotage requirement on foreign ships which have been regularly engaged in inland trade between Canadian and U.S. lake ports, mainly British lakers which have now almost completely disappeared.

Not only do ocean-going Masters and officers in general have few opportunities to gain the necessary local knowledge on account of their infrequent trips, but most of them lack, and have no chance to acquire, the necessary skill to navigate their comparatively awkward ocean-going vessels in congested canals and narrow channels and the shiphandling skill required to proceed safely and speedily through locks. Such skill can be acquired only through long training and maintained through constant experience.

Ocean-going vessels with their high superstructure and flared bows are much more affected by winds, especially when light or partly loaded. This problem is further compounded by their inferior manœuvring ability at close quarters due, *inter alia*, to their type of engines and their smaller rudder as compared to lake vessels which are designed especially for greater manœuvrability in confined waters.

Any mishap or faulty manœuvring would not only damage the ship or ships involved but might close the Seaway for a considerable period of time. Furthermore, when the channel or canal passes through a densely populated area, e.g., the Welland Canal, the safety of the residents is also involved.

The availability of pilotage service is also an essential requirement for the efficiency of Seaway operations. In peak traffic periods, traffic congestion develops at the locks, even if operations there proceed at optimum speed; the situation would be aggravated considerably if Masters and officers unfamiliar with lockage procedures and shiphandling at close quarters were allowed to proceed through the locks on their own. Pilots bring their *expertise* to these ships and enable the Seaway to operate the locks at optimum efficiency.

(2) UNDESIGNATED WATERS PILOTAGE

In Great Lakes pilotage legislation the term "pilotage" is used in its original meaning in connection with undesignated waters (excluding ports). It refers merely to the navigation of a vessel without connoting local knowledge or experience in a limited sector of confined waters and promises no more than general familiarity with navigation in the open waters of the Lakes.

The compulsory pilotage requirement is, therefore, basically different from the point of view of the status and function on board of the registered pilot while in undesignated waters. The pilotage service consists merely of placing on board at the disposal of a Master who has not among his crew a "B" certificate-holder a competent navigator with general experience in navigating the open waters of the Lakes. He is available if the Master wishes to consult him (in which case he is only an adviser) or to use his services (in which case he becomes the ship's pilot). If the Master does not make any use of his services, the pilot is nothing more than a passenger on board.

Navigation in the open waters of the Great Lakes is straightforward and can be performed by any qualified mariner provided, however, that he has familiarized himself with the few differences in navigational rules and customs:

- (a) the Rules of the Road for the Great Lakes which, in some respects, are at variance with the International Rules of the Road (for a study of the Rules of the Road for the Great Lakes, vide Part IV, pp. 927 and ff.);
- (b) the common practice on the Lakes of using separate courses or shipping lanes for upbound and downbound traffic as shown on charts (p. 114);
- (c) the extensive and mandatory use of ship-to-ship radiotelephone communications as a navigational aid, especially for meeting and overtaking, security calls, etc. (pp. 107-113).

That pilotage in undesignated waters is of secondary importance is apparent from Great Lakes pilotage legislation because the limit of the compulsory pilotage requirement, even for vessels whose officers are totally un-

familiar with the areas concerned, is that a registered pilot for the waters in question must be on board. He is readily available if the Master wishes to employ or consult him, but there is never any obligation to do so.

Apart from the slight differences in customs and rules already mentioned, navigation in the open waters of the Lakes does not differ from normal navigation except that ships are more frequently met. Long straight courses, clearly marked on charts, are followed and, when good weather prevails, the steering is entrusted to the automatic steering device, the "automatic pilot". The main responsibility of the officer of the watch is then to keep visual and radar lookout for possible encounters with other ships. Even this eventuality is quite remote because one-way lanes are followed. Radar is a necessary and efficient aid when visibility is poor.

Captain C. A. Bodensieck, then Assistant Operating Manager, Canada Steamship Lines, stated before the Commission that, in his opinion, average Master Mariners could sail the open Lakes without any assistance, provided they were familiar with the Rules of the Road for the Great Lakes. The same statement was made by a Canadian pilot registered for District No. 3 who pointed out, however, that Masters and officers of ocean vessels appeared to be insufficiently familiar with these Rules of the Road and claimed that they can not be learned in one or two trips. Pilot Bissonnette of District No. 2 expressed the same opinion and felt, therefore, that the "B" certificate should be retained as a way of ascertaining whether foreign officers are sufficiently versed in the Rules of the Road for the Great Lakes and local radiotelephone procedure.

(3) PORT PILOTAGE

Port pilotage is true pilotage in the Canadian meaning of the term. Normally it consists of bringing a ship in from open waters to a berth through the congested, confined waters of a port and vice versa. It requires of pilots great skill in shiphandling and an intimate knowledge of port channels and berths, peculiarities and limitations, and up-to-the-minute knowledge of traffic and changing local conditions.

When a port is wide, deep and easy of access, pilotage is relatively unimportant and becomes merely a speedier, safer berthing service. When such conditions prevail, e.g., at Sept-Isles and Baie-Comeau on the St. Lawrence River, port pilotage may be efficiently provided by any qualified shiphandler. In most ports, however, very difficult navigational conditions exist for a number of reasons. They are generally located at the mouth of a river, with the result that navigation and berthing are affected by currents, cross-currents and eddies. Most ports have been in existence for many years and the limit of their channels and facilities has often been reached. Even such improve-

ments as are practicable can not keep pace with the increasing demands of fast changing modern ships. These difficulties are compounded when the port is very active and constant traffic prevails—Saint John (N.B.) and the upper harbour of Montreal are extreme examples. In such cases, the highest degree of shiphandling skill is required but this alone is totally insufficient: the pilots in these harbours must truly be pilots—not merely berthing Masters—and must have intimate knowledge of port features, conditions and peculiarities, traffic, currents and cross-currents and depth of water, together with constant experience in operating all types of vessels under all conditions. Such essential *expertise* can not be obtained in a general way or maintained through an occasional voyage. If this situation is not recognized, the result is inadequate, inefficient port pilotage service which will adversely effect port operations, delay ships, increase their charges and add to the risks of navigation.

Changing local conditions present few problems in Great Lakes system ports. Since there is no tide, currents are mainly uniform and in most ports there are no significant changes in water level. Any changes in level in ports situated on the shores of the Lakes (not in the connecting channels) are small, except for a few ports situated at both ends of Lake Erie (p. 84). The causes of this phenomenon are well known and information about actual water levels is readily available from data supplied by the Department of Transport and the United States Coast Guard. The main difficulties encountered in most ports are caused by narrow channels, lack of room to manoeuvre and crowded traffic. However, a combination of these conditions occurs in few ports. Therefore, the need for port pilotage to enhance the safety of navigation varies greatly from place to place and, in certain cases, can be justified only for non-regular traders. Since conditions are stable, familiarity with the confined waters of a port is easily gained and maintained by regular traders. On the other hand, experience has proved that non-regular traders—even in ports easy of access, with ample room to manoeuvre and little or no traffic—generally take the prudent course of employing a local pilot wherever such services are available.

Because of the compulsory pilotage requirement throughout the Great Lakes system, including open waters for all ships not qualifying as regular traders, United States and Canadian Great Lakes pilotage legislations do not specifically provide for separate port pilotage service. Non-regular traders are required to have a registered pilot on board at all times while within the system; port pilotage, including berthing and unberthing, is considered accessory to river or lake pilotage assignments. Because local *expertise* can be easily obtained and maintained, the presence of a registered pilot on board all non-regular traders in designated waters, and most of them in undesignated waters, reduces considerably the need for separate local port pilotage services.

However, Great Lakes pilotage legislation does not apply to all vessels. Moreover, in undesignated waters, personal exemptions ("B" certificates) may be obtained by ships' officers, provided they can prove their general familiarity with the navigational features and practices followed during transits of these open areas. In certain ports in undesignated waters where a demand for pilotage existed, these exclusions and exemptions, together with the added advantage of having experienced local experts, have given rise to the creation of a local port pilotage service by unlicensed, unregistered pilots, generally selected by the port authorities. In most ports, local pilotage assistance may be obtained unofficially.

Vessels subject to Great Lakes pilotage legislation face two situations as far as port pilotage is concerned, i.e., in ports within designated waters and in those situated in undesignated waters on the fringes of the open waters of the Great Lakes.

Very few ports in the first category are visited by vessels employing registered pilots. The main ones are Detroit and Toledo in the western sector of District No. 2, and, to a much lesser extent, the ports of Kingston and Sandusky, both just inside the designated waters limit. The situation here with regard to pilotage is the same as for any river pilotage such as exists in the New Westminster District and the St. Lawrence Districts of Quebec, Montreal and Cornwall. Ships arrive at those ports after a long river trip and it is part of the pilots' assignment to bring them into port and berth them if their destination is a port within the District for which they are licensed or registered. It is part of each pilot's training to be fully familiar with the local peculiarities of each of the ports within his District and such knowledge is easily maintained by the frequency of his visits during the normal course of his duties. In these circumstances, in view of the fact that a pilot is already on board incoming vessels, the creation of a separate group of harbour pilots is not economically warranted unless extreme conditions exist (for the study of the advisability of instituting separate harbour pilotage service for the harbour of Quebec, vide Part IV, pp. 322 and ff.).

In designated waters, there is very little demand for port pilotage which is not an accessory to a trip assignment, e.g., movages and services required by excluded vessels. This poses no problem if pilots are generally readily available, as is the case if the port contains a pilot station or is situated near one; or if pilots are usually in the vicinity on account of the large number of vessels calling there. Intermediate ports with little pilotage traffic pose serious problems of cost but they are cases of exception and are treated as such. Since it would be an unwarranted discrimination against these ports to charge vessels the travelling expenses of pilots from and to the nearest pilot station, they are absorbed in the operating costs of the District and are taken into account when uniform rates are established. The incidence of such local demands is very small.

However, ports situated in undesignated waters are in quite a different situation. There is greater demand for port pilotage from vessels without a pilot on board because of the fact that, in addition to the occasional excluded vessel which may make use of the local pilotage service, there are also a number of vessels which enjoy an indirect exemption because they have a "B" certificate-holder on board. These vessels, therefore, arrive off ports without a pilot on board and, although there is no obligation for them to employ a pilot to enter and be berthed, if this is desired (and this is the custom with ocean-going vessels), they may ask for an official pilot registered for the undesignated waters in which the port is situated. They also have the choice (and this at their entire discretion) of accepting the service of any other person offering his services as a pilot. By contrast with the requirement under Part VI C.S.A., exclusions and exemptions place the vessels concerned completely outside the application of Part VIA and the United States Great Lakes Pilotage Act, just as if these two Acts did not exist for them (pp. 6-7 and 32).

Therefore, parallel with the registered pilot system there are a number of non-official and voluntary pilotage services, where there are good local reasons and sufficient customers. If a local pilotage service exists, vessels with no registered pilot on board normally take advantage of it. Although none of the Great Lakes ports situated in undesignated waters present serious navigational difficulties which an occasional call would not generally suffice to solve, the knowledge required for safe navigation and efficient service can not be maintained unless the registered pilots call frequently and regularly, and their *expertise* with regard to any port will not match that of a competent local pilot who is exclusively engaged in local pilotage assignments. A large number of ports are situated in undesignated waters and, since most Lake assignments (except on Lakes Superior and Michigan) are transits, the registered pilots have little occasion to call, even at the most important Lake ports, and, in fact, there are a number of ports which some pilots do not visit at all within one or more navigation seasons. Therefore, they have little opportunity to gain and maintain the required local *expertise*. Hence, the registered pilots are unlikely to match local pilots in the provision of port pilotage services. This explains why, when the need arose for it, port authorities not only encouraged the formation of a local service but also organized such services themselves and provided them to shipping on a voluntary basis in order to enhance the safety of navigation and increase the efficiency of port operations. Toronto and Hamilton are examples. Until recently, in addition to their in-District assignments, District 2 pilots were called upon to perform port pilotage in any of the ports situated in the undesignated waters of Lakes Ontario, Erie, Huron and Michigan. The *expertise* of these pilots in these numerous and widely separated ports could only be general, with the result that they were really Sailing Masters rather than true pilots in

these situations. This has since been corrected to some extent. The policy now is to restrict District pilots to in-District assignments and leave port pilotage in ports situated in undesignated waters to registered lake pilots.

Because of the added advantages provided by a local pilot, some vessels with a registered pilot on board employ a port pilot, despite the resulting extra cost. However, since 1962, in such cases, the berthing and unberthing charges payable to the registered pilot when he performs such services have been saved.

When Capt. F.S. Slocombe of the Department of Transport testified before the Commission, he stated that they received complaints from shipping companies that District and lake U.S. registered pilots when in undesignated waters on board vessels bound to Toronto or Hamilton informed Masters that they were not familiar with these harbours and that local pilots were available. The Masters took the hint and usually ordered a port pilot who performed piloting in and out of harbour and berthing and unberthing. The Shipping Federation complained that this was an abuse since it resulted in added pilotage costs. It appears that the reason was lack of financial incentive because their remuneration remained the same whether or not they handled berthing or unberthing. To resolve this situation, a \$25.00 berthing and unberthing charge was added in 1962, provided the manœuvre was carried out by the pilot. It is reported that the effect was a complete change of attitude; the formerly offending pilots became quite confident of their ability to pilot in Toronto and Hamilton and even expressed indignation at the employment of port pilots. The port of Hamilton authority complained in their brief to this Commission that this particular incentive was endangering the safety of the port; they pointed out that District and lake pilots had little or no experience of changing local conditions in the port but because of this additional fee they were likely to run unnecessary risks to obtain it, rather than advise Masters to take a harbour pilot.

This obviously was not the sole reason. A sizeable number of registered pilots must have found themselves too unfamiliar with these ports to undertake assignments and, despite the financial incentive, vessels with registered pilots on board continued to employ port pilots (vide breakdown of Toronto port pilotage, p. 132). The situation gradually changed as District 1 and District 2 pilots were limited to in-District assignments, and Lake Ontario assignments were concentrated among the small group of Lake Ontario pilots who thereby gained the required familiarity with these ports because of their frequent calls.

Under the governing legislation, the sole obligation for a vessel subjected to the limited compulsory requirement for undesignated waters is to have a registered pilot on board. Once this requirement is complied with, the Master is at liberty to act as if the pilotage legislation did not exist and, therefore, to employ local port pilots if he sees fit to do so. This was the

interpretation given by the Canadian authorities to the legislation but these views were not shared by the United States Administrator when he came under the Department of Commerce. The Canadian authorities have been considering Toronto and Hamilton port pilotage perfectly legal, provided it was offered on a voluntary basis and no infraction of Great Lakes pilotage legislation was committed. Hence, it was legal for an un-registered harbour pilot to pilot or handle excluded or exempt vessels in any circumstances. It was legal for him to pilot non-exempt vessels in ports situated in undesignated waters, provided the requirement of sec. 375B had been complied with, i.e., there was on board a registered pilot whose services were not used, or there was a "B" certificate-holder on board, or a waiver was issued. This view was not shared by the United States Administrator who claimed that the spirit of the Memorandum of Arrangements was being violated in that under it all pilotage services required in the Great Lakes system were to be provided by registered pilots. This view, which is not based on the clear text of both United States and Canadian statutory Great Lakes pilotage legislation, appears to have resulted from the influence of the United States system in that pilots, because they are necessarily private entrepreneurs, endeavour by all possible means to enlarge the application of legislation in order to increase their sources of revenue.

Port pilotage by registered pilots is also occasionally a serious waste of valuable time and a costly undertaking. Pilots sometimes have to be despatched many miles merely to attend to assignments for the benefit of a vessel not required to take a pilot in undesignated waters but requesting a pilot simply for port pilotage. If no pilot happens to be in the locality concerned, one then has to be provided from the nearest pilotage station by land or air transportation or has to travel with the ship as a passenger in order to be available when she reaches the approaches to the port where his services will be needed.

The provision of port pilotage services by a registered pilot is dependent upon the limited compulsory pilotage requirement for the undesignated waters of the Lakes. As stated earlier, the actual presence of a pilot on board a non-exempt vessel does not correspond to a genuine need but results from the obligation imposed by the law. If this obligation were to be abolished, the demand for port pilotage would increase greatly. It is common knowledge that, while Masters of lakers berth and unberth their vessels, even when they have a pilot on board, the reverse is true of ocean-going vessels whose Masters will, as a rule, take advantage of a local pilotage service for that purpose. This is shown again by the fact that the employers of port pilots are ocean-going vessels which have taken advantage of the "B" certificate procedure.

Such independent and voluntary port pilotage service exists in Hamilton (now serviced by Toronto pilots), Toronto, Chicago and, to a lesser extent, in other ports. It also still exists at Thunder Bay and Duluth but the former

private organizations have been taken over by District 3 registered pilots who have established pilot stations in these ports.

(a) *Port Pilotage Organization, Hamilton Harbour*

When the Shipping Federation discarded the former Sailing Master system and replaced it with pilotage service in only the confined areas of the Great Lakes waterway, i.e., in the connecting channels, and allowed ocean-going vessels to navigate freely in the open waters of the Lakes, a need for local port pilotage services developed. Then the Shipping Federation urged the port authorities of the most important ports to organize their own pilotage service. The Hamilton Harbour Commissioners proceeded with the formation of their service in 1959 because they had found that ocean-going vessels were inclined to wait outside the entrance to the harbour, particularly in bad weather, until they obtained assistance to enter. Since these vessels were in the habit of calling the Harbour Master's office for a pilot, it was decided that the Harbour Corporation should have pilots in its own employ to prevent delay.

The port authorities had tried to have their pilotage service officially recognized and to make it compulsory, but there was a great deal of opposition from the shipping lines because they felt that it should be left to individual Masters to decide whether they needed assistance or not. However, the port authorities consider that the harbour installations are adequately protected by the voluntary system they have created because no Master who is unfamiliar with the harbour would risk his vessel unnecessarily.

After the enactment of the Great Lakes pilotage legislation, the Commissioners asked the Department of Transport to have their harbour pilots given official status under the new legislation for registered pilotage in Hamilton harbour and the immediate vicinity. This request was not granted.

At one time, however, the Department of Transport suggested that one or more of the registered pilots be allocated to Hamilton but under the direction and control of the Great Lakes Pilotage Administration and not of the port authority. The Hamilton Commissioners opposed the suggestion on the ground that the integration of their various services, such as towing, pilotage and aids to navigation, is most important for the efficient operation of the port.

Hamilton harbour is administered by a Corporation created by the Hamilton Harbour Commissioners' Act in 1912 (2 George V c. 98 (Ex. 521)). The Corporation consists of three Commissioners, one of whom is appointed by the Council of the City of Hamilton, and two by the Governor in Council. The harbour, as defined in the Act, includes "all the waters of Burlington Bay and what is known as Cootes Paradise, together with all

the inlets thereof (excepting however, Burlington Channel), and also all water-front property, water lots, piers, docks, shores and beaches in and along the said bay and waters.”

The only provision in the Commissioners’ By-laws concerning port pilotage refers to the charges a vessel is to pay when an employee of the Corporation is engaged as a pilot to move the vessel in and out of the harbour or within the harbour and when a pilot vessel is provided by the Corporation for that purpose (P.C. 1960-1182 dated August 24, 1960, as amended by P.C. 1962-214 dated February 15, 1962). The other provisions the Commissioners had included in their regulations for the purpose of regulating pilotage in the harbour did not receive the sanction of the Governor in Council and, therefore, were deleted.

Port pilotage was organized for two reasons: first, to meet the demand by Masters for such service and, second, for the protection of the shore installations.

The Harbour Master’s office is equipped with radiotelephone and a Seaway teletype service for the purpose of allocating berths and providing port pilots and tug assistance. Tugs equipped with radiotelephone are made available on a 24-hour basis. The Corporation claims that its tug service and pilotage service are operated as a whole and can not be economically operated if one part is separated from the other. The competition to harbour pilots by registered pilots raises the question of economics. At the Commission’s hearings, the harbour authority stated that, if the harbour pilots are not employed regularly, the Corporation will have to discontinue the towing service since the harbour pilots operate both pilot and towing service together on an integrated basis.

The entrance to the port is through the narrow Burlington Channel. The main navigational hazard is the cross-current that may be encountered at the entrance running possibly four to five knots depending upon the direction of the wind.

At the time of the Commission’s hearings, pilotage was provided by three harbour pilots who were employees of the harbour authority and paid an annual salary to provide both tug and pilotage services.

The following table based on statistics provided by the harbour authority shows the extent of port traffic, divided into domestic and foreign, and the use made of the pilotage service.

The harbour authorities stated that they would like to have full control and supervision over pilotage within the limits of Hamilton harbour and its approaches to the fairway buoy.

The general criticism of District and lake pilots was their lack of local experience and knowledge.

Year	Domestic Vessel Arrivals	Overseas Vessel Arrivals	Overseas Vessels Employing Harbour Pilots*	Number of Ships Employing District or Lake Pilots
1959.....	n/av.	n/av.	293	n/av.
1960.....	n/av.	n/av.	525	n/av.
1961.....	1,024	383	332	n/av.
1962.....	1,071	513	492	n/av.
1963.....	1,044	500	376	201
1964.....	1,174	542	424	346
1965.....	1,151	528	412	327
1966.....	1,141	521	361	344
1967.....	960	529	366	420
1968.....	1,131	330	177	374
1969.....	1,056	306	131	310

*Counting inward, outward and in-harbour movements separately.

SOURCE: EX. 1541(k).

It was submitted that registered pilots are not the equals of the harbour pilots in continued experience navigating the entrance channel and in the harbour, knowledge of up-to-the-minute changes in currents, traffic and other navigational conditions and familiarity with certain berths and slips. The result is that in adverse weather registered pilots are likely to delay ships at the outer anchorage until conditions improve and, if they proceed in, their uncertainty may endanger ships' safety. To support this assertion, the case of *M.V. Patignies* was quoted as an example. In 1962, she entered on the wrong side of Burlington Channel and "rubbed the bottom" before finally getting through; once inside the harbour, a harbour pilot was employed for berthing. On November 30, 1962, *M.V. Dagan* left her terminal in dense fog with a lake pilot on board and went aground when approaching Burlington Channel (Ex. 1105).

Harbour pilots were also involved in minor casualties, e.g., *M.V. Federal Pioneer* which grounded Nov. 30, 1960; *Algernib* whose spar touched the bascule bridge on the way in June 1, 1962, and also on the way out; in 1960 or 1961, the *Crystal Gem* grounded and twisted her rudder while being towed from the Dominion Foundry berth.

There are approximately 65 open berths in Hamilton.

The only customers for port pilotage are ocean-going vessels. Over the ten-year period 1959-1968, only three domestic vessels employed a pilot to enter the harbour, in each case a harbour pilot.

There are several lines operating into Hamilton which insist on having a harbour pilot on board as a matter of policy.

When a ship arrives with a District or a lake registered pilot on board and a harbour pilot is called for in addition, the District or lake pilot remains on board but the harbour pilot takes charge of navigation from the fairway buoy, brings the ship in and berths her.

The rates for voluntary harbour pilotage service are fixed by sec. 139 of the Harbour General By-law (P.C. 1969-993). There are two scales depending upon the size of the vessel, i.e., over and under 260 feet in length. There is a rate for a round trip, i.e., pilotage inward and pilotage outward (originally, \$30 and \$50 raised to \$50 and \$60 in 1962); a rate for a one-way trip either inward or outward (originally \$20 and \$30 raised to \$30 and \$40 in 1962) and, finally, a rate for a movage (\$15 and \$25 raised to \$25 and \$30). The pilot boat charges are of three types:

- (i) for embarking or disembarking a pilot outside the harbour entrance (\$15 raised to \$18);
- (ii) to or from the anchorage inside the harbour (\$10 raised to \$12);
- (iii) for assisting in handling a vessel's lines while mooring or moving, but not including tug service (\$10 raised to \$15).

In 1962, another item was added combining items (i) and (iii) (\$28). There is also a \$20 per hour detention charge when there is undue delay to the pilot vessel because of the failure of a Master to take service at ordered time.

In 1966, a series of disputes arose between shipowners whose vessels had "B" certificate-holders on board and the Cape Vincent pilot pool with regard to providing District or lake registered pilots for harbour pilotage in Toronto and/or Hamilton. The practice seemed to have developed that the Cape Vincent despatcher would ask vessels with "B" certificate-holders on board bound for Toronto or Hamilton whether a pilot would be needed for these harbours. Vessels which had replied in the affirmative were met at the entrance of the harbour concerned by the harbour pilot vessel with two pilots: a registered pilot and a harbour pilot. The harbour pilot was employed and the registered pilot was refused on the ground that he had not been ordered. Those vessels, however, which paid for the services of the harbour pilot were also invoiced by the Cape Vincent pool for the registered pilot on the ground that his services had been requested. The companies concerned declined the payment and, in order to put an end to this practice, the Shipping Federation issued two circular letters dated September 8 and October 17, 1966, to all its members indicating the procedure that should be followed by vessels with "B" certificate-holders on board to obtain the services of local port pilots without meeting these difficulties, i.e., never to order a harbour pilot through Cape Vincent despatching office but from the Toronto or Hamilton Harbour Master locally through the ship's agent

or directly by radiotelephone (Ex. 1541(c)). This was obviously a stratagem on the part of the Cape Vincent pilots' pool to increase its pilotage revenues. This practice has since been discontinued.

The importance of Hamilton pilotage service has been steadily decreasing with the gradual decrease in its main users—vessels with “B” certificate-holders on board (pp. 138 and ff.). At the beginning of the 1967 shipping season, the port pilotage staff was reduced to one port pilot, assisted by the Harbour Master when necessary, and the port authority has discontinued operating the pilot vessel and tug services. Under arrangements made by the port authority, these are now provided, when needed, by a private contractor. Finally, in the 1970 season, the harbour authority ceased to have harbour pilots of its own. It was realized that any Hamilton pilotage requirements not attended to by District and lake registered pilots could be satisfactorily provided by the port pilots of Toronto whose services were readily available. Therefore, the Hamilton Harbour Commissioners have arranged on a trial basis for its pilotage service for the 1970 shipping season to be supplied by the Toronto Harbour Commission (Ex. 1541(k)).

(b) *Port Pilotage Service, Toronto Harbour*

Toronto harbour is governed by the Toronto Harbour Commissioners' Act, 1911 (Ex. 516) under which the operation of the harbour is entrusted to five commissioners who constitute a corporation under the name of *The Toronto Harbour Commissioners* (1-2 Geo. V c. 26).

Toronto, like Hamilton, experienced a need for port pilotage as a result of the re-organization of the Great Lakes pilotage services by the Shipping Federation in 1958 when the former Sailing Master system was abolished and regulated pilotage services were limited as much as possible to the confined waters of the connecting channels. The immediate results were that there was no pilotage in the open waters of the Lakes, when vessels reached port they had no pilot on board and ocean-going Masters, who as a rule always employ port pilots for navigation in and out of harbour and for berthing, requested local pilots.

At first, the port authorities refused to accept responsibility for establishing their pilotage service and, under the circumstances, the shipping interests were obliged to organize one of their own. In 1959, the Department of Transport, at the request of the harbour authority, supplied Captain W. Cook, a pilot qualified for the Port Weller area and also with special qualifications for pilotage in Toronto. The Department of Transport, however, removed him after only a few days because there was allegedly no real requirement for his services there and, furthermore, his services were urgently needed in the Welland Canal. Various other qualified mariners were employed as port pilots by different companies. In 1960, the shipping interests in Toronto combined

their efforts and made arrangements with Captain D. Livingstone to be on call as a local pilot. The Toronto Harbour Commissioners contributed to this voluntary system by supplying an office and facilities free of charge. During this period they studied the advantages and feasibilities of operating their own service and began to do so in 1961, with the full knowledge and approval of the Department of Transport. They then hired Captain Livingstone as their permanent employee, with all the attendant fringe benefits, and established the charges payable to the port authority for pilotage services which, however, remained voluntary. In 1962, the number of port pilots was increased to two.

The harbour authority tried to make this service official by providing full coverage for it in the Toronto Harbour Commissioners' By-law, but the required sanction was refused except for the schedule dealing with rates. In the circumstances, the harbour authorities simply withdrew the proposed amendments and have operated the service ever since on a purely contractual basis at the request of individual Masters.

At the Commission's hearings, the Harbour Commissioners stated that there is no need for compulsory pilotage in the port but added that, if any pilotage service or any advisory assistance is to be given to Masters of ships, this can best be done under local control because those in charge know the requirements of the port both physically and economically. Port pilots have far better knowledge of day-to-day local conditions and should reasonably be expected to be better qualified than pilots who consider Toronto as simply one port in the large area where they serve. From a physical point of view, the Commissioners considered the port extremely safe but they pointed out that all ports have their own peculiarities. There are local conditions in Toronto, e.g., berthing, ferries to and from Toronto Island and regattas in the bay, which must be taken into consideration for safe navigation. The Commissioners were also of the opinion that discipline can best be handled by a local authority, and that the harbour installations are adequately safeguarded by their voluntary system of pilotage.

It is the opinion of the Harbour Master that Masters employ local pilots primarily because of their local knowledge, especially of movements within the harbour, which enables them to speed up movements and berthing.

A representative of the Shipping Federation stated that local pilots are used in Toronto to save time and money. Although a Master might be qualified to take a ship anywhere in the world, a faster operation usually results when a local pilot is employed for entering harbour. This is particularly relevant when stevedore gangs have been ordered for a specific time. It appears that the majority of agents for ocean-going vessels employ local pilots and have found them completely satisfactory.

When a harbour pilot is ordered he embarks from the local pilot tug in the harbour approaches at the fairway buoy.

In 1964, the normal work week of the Toronto pilots was 40 hours. Each eight hours of aggregate time worked on statutory holidays or in excess of 40 hours per week on regular work days entitled them to one day's vacation at the end of the season. In addition, after a year's employment, each pilot was entitled to ten working days' vacation. Sick leave credit was accumulated after one year's service on the basis of $1\frac{1}{2}$ days per month's service. The pilots were also entitled to all other permanent staff benefits in accordance with the rules and regulations, i.e., pension, group life insurance, Ontario Hospital Insurance, Workmen's Compensation, Blue Cross supplementary and PSI.

The fringe benefits available to pilots in Toronto were on the basis of a full year's salary, although they worked only part of the year. It was estimated by the Toronto Commissioners that the fringe benefits were equivalent to approximately 35¢ an hour.

The Toronto Harbour Commissioners stated in a letter dated Sept. 2, 1970 (Ex. 1115) that the voluntary port pilotage service has remained essentially the same; the number of port pilots has remained at two. The rates, however, have been increased to \$80 for inward and outward pilotage and \$50 for a one-way service or a moveage. There is a detention charge of \$5 after the first hour when a pilot is detained on board for the convenience of the vessel. The procedure to obtain a port pilot is to give 12 hours' advance notice of requirement and confirm it three hours ahead of time.

Toronto experienced the same difficulties as Hamilton with the Cape Vincent despatching office but these have since been resolved.

As in Hamilton, the port pilotage users are almost exclusively ocean-going vessels with "B" certificate-holders on board. Since the inception of the port pilotage service in 1961, port pilots have been employed by domestic vessels on approximately six occasions only.

The following table, computed from the Harbour Master's statistics, shows clearly the number of vessels which employ port pilots and the degree of importance of this service.

The local demand for port pilotage has decreased steadily in recent years for two main reasons:

- (i) the diminishing number of "B" certificate-holders;
- (ii) the increasing local *expertise* of the registered pilots.

The pilotage assignments in Toronto which are performed by registered pilots have been restricted to a smaller number of pilots, and now are almost exclusively performed by the Lake Ontario pilots. For a number of years, District No. 1 pilots have not performed any assignment outside their District and District No. 2 pilots are now very seldom called upon to perform any assignment in the undesignated waters of Lake Ontario. Since Toronto is

Number of Arrivals and Departures			Number of Times Port Pilots Employed			
Year	Domestic	Overseas (No. of vessels involved shown in brackets)	Total	With "B" Certificate	With Registered Pilot on Board	With Waivers
1961.....	2,742	1,628 (275)	804	Not available	Not available	Not available
1962.....	2,646	2,008 (319)	1,015	769	246	Not segregated
1963.....	2,544	1,988 (297)	805	595	210	Not segregated
1964.....	1,908	2,157 (340)	752	657	53	42
1965.....	1,686	2,276 (362)	780	623	40	117
1966.....	1,626	2,288 (353)	680	640	15	25
1967.....	1,442	2,374 (379)	632	615	4	13
1968.....	1,470	1,788 (359)	417	407	2	8
1969.....	1,522	1,862 (355)	313	305	—	8

SOURCE: EX. 1115. Harbour Master's Office, August 4, 1970.

the busiest port where they operate, each of the 14 Lake Ontario pilots has made more frequent calls and become much more familiar with it than were the District No. 1 or No. 2 pilots.

The same factors have also caused a gradual decrease in the port pilotage demand in the neighbouring harbour of Hamilton. In 1970, the workload of the Toronto pilots permitted integration of the two services and two Toronto pilots now attend to both ports.

The following table prepared by the Toronto Harbour Master's office shows the distribution of port pilotage on a monthly basis. Except for the first and last months of the season, which are not complete months, pilotage work is spread quite evenly throughout the navigation season.

PILOTAGE SERVICES PERFORMED BY TORONTO HARBOUR
COMMISSIONERS' PILOTS
1961-1969

	1961	1962	1963	1964	1965	1966	1967	1968	1969
April.....	44	53	51	51	43	47	47	41	17
May.....	116	154	124	91	105	109	98	64	44
June.....	130	147	114	109	98	73	74	48	46
July.....	54	150	107	86	125	51	95	30	40
August.....	62	117	88	98	83	98	77	58	36
September.....	103	133	96	92	98	102	82	44	24
October.....	149	128	97	96	116	100	75	52	44
November.....	146	138	117	123	107	87	56	56	54
December.....	—	—	11	6	5	13	24	24	62
	804	1,015	805	752	780	680	632	417	313

SOURCE: Harbour Master's Office, August 4, 1970.

(c) Port Pilotage Service, Other Ports

Toronto and Hamilton are the only Canadian ports in the Great Lakes system where an organized pilotage service exists. In a number of other locations pilotage assistance was, and still may be, available on a strictly private basis.

It appears that the situation is the same in United States as in Canadian waters. Sec. 9 of the United States Great Lakes Pilotage Act of 1960 goes no further than to prohibit states, municipalities and other local authorities from making pilotage compulsory or regulating it in waters otherwise within their jurisdiction. Unless a prohibitive legislative provision can be found in some other statute, a port pilotage service may be organized and offered on a private, voluntary, contractual basis by municipalities, port authorities or private citizens or corporations. Mention was made at the Commission's hearings of port pilotage being performed at Chicago and Bay City by local men who are not registered as pilots. It appears that the Chicago pilots still continue to provide service in the Chicago area, presumably to vessels not affected by the pilotage provisions of the United States Act, or which have complied with its requirements. In 1961, a gentleman's agreement was drawn up between Districts No. 2 and No. 3 pilots and the Chicago pilots, a group which apparently had been in existence for a number of years. To enable the Lake Superior Pilots' Association (District No. 3 pilots) to play its expected rôle in the Chicago area, it made the foregoing agreement with the Chicago pilots to the effect that their pilot vessels and despatching facilities could be used whenever a ship required or requested a registered pilot.

In 1959 and 1960, the Shipping Federation of Canada had organized a private pilotage system at Duluth and the Lakehead (now Thunder Bay). These private services disappeared when the Great Lakes District 3 pilot organization stationed registered pilots in those ports for the very purpose of attending to port pilotage requirements, a system that was tried without success in Toronto and was refused by the Hamilton port authority.

Although there was a need for port pilotage, the Lakehead Harbour Commissioners declined to assume responsibility for it because of the financial implications.

When the St. Lawrence Seaway opened in 1959, very few ocean-going vessels called at the Lakehead and the limited port pilotage requirements were met by a private system organized by a local agent at the request of the Shipping Federation of Canada. The Department of Transport was well aware of these arrangements and did not consider taking over this responsibility because its policy was not to assume increased pilotage commit-

ments and, if a private concern was operating a system satisfactorily, there was no reason for the Department to interfere. Port-Cartier (Part IV, p. 542) was cited as a typical example.

Before the existing pilotage system was organized, it appears that several complaints were lodged against this private system on the ground that the shipping agent concerned was running the organization to the disadvantage of other shipping agents. At the opening of the navigation season in 1961, as an interim measure pending the organization of District 3 jointly by the United States and Canadian authorities, the Department of Transport registered two pilots who had been in the employ of the agent to perform port pilotage at the Lakehead. Early in 1962, District No. 3 was organized. Three registered pilots were stationed at the Lakehead to handle traffic and a despatcher was appointed. Since these pilots were not limited to harbour pilotage duties, they were often absent from the harbour for extended periods of time when on assignments from the Lakehead which might take them not only through Lake Superior and the designated waters of District No. 3, but also to Port Huron and even as far as Lake Michigan ports. In these circumstances, there was often a local shortage which necessitated bringing pilots either from Duluth or Sault Ste. Marie. In accordance with the tariff then in force, the considerable travelling expenses involved were charged to the vessels concerned and this caused disproportionately high pilotage fees which the Lakehead Harbour Commissioners considered detrimental to the port. Consideration was then given to establishing a true port pilotage system as in Toronto and Hamilton. In the end, the difficulties were solved to the satisfaction of the Commissioners.

At the time of the Commission's hearings, the Secretary of the Harbour Commission stated that the three registered pilots stationed at the Lakehead were sufficient to handle the foreign ships which required pilots, that the arrangements were working satisfactorily and that there had been very few complaints. At that time, the harbour had averaged about 150 foreign-going ships over the four preceding years.

With respect to the feasibility of setting up separate port pilotage for the Lakehead, the Secretary added that the economics of the system would need careful investigation. If it could be self-supporting, the Commissioners would consider it but not if a subsidy would be necessary.

(i) Ports situated on the fringe of designated areas

There are ports situated on the fringe of District limits which were included in designated waters either to serve as boarding areas or simply by chance.

They have direct access to the open waters of the Lakes just like ports in undesignated waters and the navigational problems they present are similar or even simpler. The fact that they have been included in a designated area

may have an adverse effect because, apart from the increased cost of comparable pilotage assignments, vessels with a "B" certificate-holder on board can not benefit from indirect exemptions since these are limited by legislation to undesignated waters. This factor may become academic as the number of "B" certificates decreases but the whole problem would revive in an acute form if the compulsory pilotage requirements in the open waters of the Lakes were abrogated.

Port Weller and Port Colborne fall in the first category, i.e., they were included mainly because they are situated at the extremities of the confined waters of the connecting channels and were obvious choices as boarding areas. Kingston and Sandusky are examples of the second category, i.e., they are in designated waters merely because they happened to be on the District side of the straight line which designates the limit.

(ii) *Port Weller and Port Colborne*

These ports serve both as the entrance to a connecting channel and a pilotage boarding area. Their chief problem is that the governing legislation does not distinguish between the two functions. While it is quite logical for vessels on inward transits to embark a pilot off the harbour where there is ample sea room, it is an unreasonable requirement that vessels destined to that port must employ a pilot simply because it happens to be within designated waters. The reverse is even more unreasonable since a departing ship is heading for open water, and a pilot is not needed unless there are unusual difficulties, which is not the case in these two ports.

After years of experience, the problem was partly solved for Port Weller. Originally, the District limits extended in all cases to the seaward approach of the port and District 2 pilots had to embark or disembark at the beginning or completion of each in-District trip. This procedure proved an unnecessary imposition on the pilots and very time consuming, and resulted in pilot shortages followed by serious traffic delays. The first tentative remedy was to appoint two harbour pilots whose sole duty was to bring ships in from the anchorage or seaward boarding area to the wait wall or into lock 1, or in the opposite direction to take vessels from lock 1 out of the harbour. It was finally realized that vessels whose officers were familiar with the open waters of Lake Ontario, as vouched for by their "B" certificate, or which embarked a District No. 1 pilot or a Lake Ontario pilot did not require a District No. 2 pilot from lock 1. In 1968, an amendment to the Canadian Great Lakes Pilotage Regulations (p. 15) relocated the downstream limit of District No. 2 for downbound vessels at lock 1, thus placing Port Weller in undesignated waters for them, but still in designated waters for upbound vessels. This was only a partial solution because no relief was

granted vessels with a "B" certificate-holder on board whose inward destination was Port Weller but no serious problem developed because very few ocean-going vessels call there.

The situation at Port Colborne is different, both with respect to the Welland Canal and the port itself. The first stopping place in the canal where incoming vessels may be required to stop and, therefore, where a pilot could embark or disembark, is lock 8, situated some 2½ miles past the canal entrance. Furthermore, since lock 8's function is merely to control changes in Lake Erie water levels, it frequently remains open and vessels "walk through", i.e., pass through without stopping, in which case the first stop is at lock 7, some 20 miles past the canal entrance. Since non-regular traders require a pilot in the canal, both inbound and outbound vessels which take advantage of the "B" certificate procedure on Lake Erie must embark or disembark a District pilot off Port Colborne. Ships in transit, whether inbound or upbound, are not inconvenienced but ships from Lake Erie whose destination is Port Colborne, and vice versa, have a problem because the "B" certificate exemption does not apply to Port Colborne, although its waters do not present any particular difficulties, and they must employ a District pilot to proceed in and out of the harbour, to berth and unberth and to perform movages. The obvious solution would be to exclude Port Colborne from designated waters for all ship movements not related to the Welland Canal.

The problem is not serious at present, first, on account of the small number of "B" certificate-holders and, second, because there is no boarding station at the western end of Lake Erie and Port Colborne serves as the boarding area for vessels bound to, or coming from, that area which is situated in designated waters. Here again, the matter would become more serious if the compulsory carrying of a pilot on the open waters of Lake Erie were abolished and if a pilot boarding station were established at the western end.

(iii) *Kingston harbour*

Kingston, the principal harbour in District No. 1, is situated at the northeastern end of Lake Ontario at the head of the St. Lawrence River. It is a public harbour under Part X of the Canada Shipping Act.

Kingston was seriously affected by the changing pattern of trade after the opening of the Seaway, and the situation was compounded because it was included in the designated waters of District No. 1.

Formerly, Kingston was a very active transit port. Its location at the head of the St. Lawrence River made it one of the most important trans-shipment terminals, especially for grain, since it was at the downstream

operating limit of lakers which were too large to proceed through the 14-foot canals and locks in the upper St. Lawrence. Grain was transported between such transshipment points and the deep-water facilities at Montreal and below in smaller vessels called canallers. This transshipment function almost disappeared with the opening of the Seaway which allowed the lakers to proceed directly to deep water as far as the Gulf of St. Lawrence, and conversely also allowed ocean-going vessels of similar dimensions to proceed upriver into the Great Lakes system.

Before Part VI_A C.S.A. came into force in 1961, the fact that the harbour was part of the Kingston District carried no disadvantage in comparison with other Lake Ontario ports, since pilotage was not compulsory in the District and the harbour was automatically provided with a highly efficient port pilotage service because of its location. With the opening of the St. Lawrence Seaway, the main transit channel dredged to Seaway depth by-passed the harbour and Kingston became for all practical purposes only another port in the open waters of Lake Ontario. This factual situation was not reflected in pilotage legislation and, when it became necessary to define the designated waters of District No. 1, the western limit was made to coincide with the western limit of the Kingston District, thereby making its waters compulsory pilotage waters for all vessels except lakers and placing the harbour at a disadvantage compared to the other Lake Ontario ports.

For all practical purposes, the pilotage problem is now almost academic. Vessels to which Part VI_A applies must be navigated by a District No. 1 pilot to or from the St. Lawrence River, but to or from Lake Ontario only ships carrying "B" certificate-holders are affected. Their competence does not extend to Kingston since it is in a designated area, but their number has decreased considerably since 1964/1965. Furthermore, experience in Toronto and Hamilton has proved that even those ships ask for harbour pilotage unless they are regular traders.

However, Kingston is at a definite disadvantage in respect of rates for pilotage trips that entail only entering or leaving the harbour or for movages. These rates are much higher than in Toronto and Hamilton: the basic rate for a movage in Kingston is \$120—subject to the plus or minus variation due to size—compared with \$50 in Toronto and \$25 or \$30 in Hamilton. The same discrepancy applies in the rates for an assignment limited to entering or leaving harbour, i.e., \$70 one way (\$140 both ways) subject to variation for size) as compared to \$50 one way (\$80 both ways) for Toronto, \$30 or \$40 one way (\$50 or \$60 both ways) for Hamilton (Ex. 1541(m)). The complaint about the travelling expenses a vessel had to pay when the pilot had travelled from Cape Vincent to Kingston has now been solved by deleting this charge which was not provided for in the tariff.

After receiving vigorous complaints from the city and port authorities about the resultant discrimination, the Department of Transport consulted the United States Pilotage Administration re the possibility of excluding Kingston from designated waters. The proposal met strong opposition on the grounds that, if such a change were made in favour of Kingston, there would be pressure from other United States ports such as Toledo and Sandusky for similar treatment because they had a similar problem. This appears a very weak argument since compulsory piloting should not be imposed unless it is warranted in the public interest and to promote the safety of navigation. Furthermore, if the same problem exists for Sandusky, this would not be true of Toledo whose approach is a long narrow channel which can not be compared with the open waters leading to Kingston and Sandusky.

(4) PERSONAL EXEMPTIONS ("B" CERTIFICATES)

Part VIA C.S.A. provides that, if a vessel carries as a regular member of the complement an officer holding a "certificate of qualification" (usually referred to as a "B" certificate) for the undesignated waters in which she is being operated, there is an indirect exemption from the requirement to have a registered pilot on board. These certificates are valid for two years and only for the waters certified therein. The renewal procedure is similar to the procedure for obtaining the original certificate, *inter alia*, the applicant must establish that in the preceding two years he has made at least two round trips in the waters for which certification is requested. These certificates are granted only by the Canadian authorities as provided for by Canadian Great Lakes Regulations. Their availability is brought to the attention of ships' officers by Notices to Mariners (vide Notice to Mariners No. 31, '70 Annual Edition).

The Canadian authorities have always opposed compulsory pilotage in any form for navigation in the open waters of the Lakes as being unwarranted with respect to the safety of navigation and undesirable from the point of view of pilotage organization (pp. 54 and 61). The limited pilotage requirement for undesignated waters and the "B" certificate system were the result of a compromise emergency solution which was reached to avoid further delay in establishing an integrated pilotage organization in the confined areas of the Great Lakes system.

The opposing concepts of pilotage requirements for the open waters of the Lakes as well as the background and intended duration of the compromise are clearly expressed in a letter addressed on May 31, 1960, by the Minister of Transport to the Shipping Federation of Canada, which is quoted in full (Ex. 1266).

“THE MINISTER OF TRANSPORT
OTTAWA, CANADA

May 31st, 1960.

C. T. Mearns, Esq.,
General Manager,
The Shipping Federation of Canada,
515 Board of Trade Building,
Montreal 1, P.Q.

Dear Mr. Mearns:

Further to my letter of May 17th I now refer again to yours of May 13th concerning Great Lakes pilotage.

I am sure that you will appreciate that one of our most difficult problems in our discussions with United States authorities on this subject was a claim by them that their requirements in the matter of competency of navigators of ships on the Great Lakes were more stringent than ours. They pointed out to us that an American foreign-going ship proceeding into the Great Lakes was required to be navigated by licensed pilots no one of whom was allowed to be on the bridge for more than eight hours in any day, while we allowed a ship of any flag to proceed into the Great Lakes without requiring the employment of any pilot with local knowledge.

We argued that any foreign-going master or officer who was competent to navigate his ship in other narrow waters of the world was quite competent to set courses and to navigate his ship safely across the open waters of the lakes, it being already incumbent upon him to follow the rules of the road in effect locally.

Our expression of willingness to require a small amount of experience on the Great Lakes represented a compromise between these two extremely divergent points of view. Because of the attitude of a considerable body of opinion on the United States side and of certain interested parties on the Canadian side we felt that this compromise was necessary. Indeed, I am advised that had we not accepted this, it was almost inevitable that the United States would have proceeded to enact the original Bill, or something like it, including the requirement for a pilot to be on board at all times.

The proposed requirement of experience “in the open or undesignated waters where the vessel will be operating” is not intended to mean that the “qualified officer” must have been previously to every port. If he has gone into any port of a lake, this will be considered experience acceptable for all ports in that lake. This again is the practice followed by the United States Coast Guard in licensing their own men and is a requirement which already applies to American foreign-going ships entering the Great Lakes.

If in the light of experience, modifications appear to be necessary, we will endeavour to secure them but in the meantime we have to give this system a trial.

Yours sincerely,
George Hees

(Sgd.)

George Hees”

The two-trip condition appears to be merely perfunctory. The mere fact that the applicant was on board when a ship made two round trips qualifies him, provided he meets the other requirements, and he need not have been on the bridge.

When the Canadian Great Lakes Pilotage Regulations were enacted on April 27, 1961, this requirement for Lake Superior was one round trip (subsec. 7(3)(b)(ii)). This was not in conformity with the provisions of the Memorandum of Arrangements. Since most deep-sea Masters had not made the required trips in Lake Superior and it was difficult for them to qualify, it seemed reasonable to stipulate only one trip there, observing that they had already been through several lakes where navigational conditions were comparable. However, on account of the objections raised by the United States Pilotage Administration, an amendment dated July 24, 1961, extended the two-trip requirement to Lake Superior.

In contrast to the registration certificate for pilots, there is no age limit for the "B" certificate. Since the public interest is not involved, the Canadian authorities rely on the judgment of shipowners; if they are satisfied that a Master or mate in their employ remains capable despite his advanced age, he is considered fit to hold a "B" certificate.

Examinations for "B" certificates granted by Canada are carried out by the D.O.T. Examiners of Masters and mates, usually at Montreal, but they may also be conducted at Thunder Bay, Welland, Toronto, Ottawa, Trois-Rivières, Quebec, Baie-Comeau, Port-Cartier, Halifax and St. John's, Nfld. Examinations are oral on the subject-matters specified in the Regulations (pp. 22-3) and are held at the Examiner's office, at the pilotage office and on board, whichever is more suitable in the circumstances, at any time. The fees are higher, however, if the examination takes place outside office hours or on a legal holiday (p. 24).

The following table is a summary for the years 1961-1969 of the number of examinations held for original certificates, renewals or extensions, results, reasons for failures and the undesignated waters for which the certificates are valid.

The number of certificates of qualification issued by the Canadian authorities has decreased considerably and only a few were renewed when the original certificate expired after two years. The Shipping Federation in a letter dated August 27, 1970 (Ex. 1541(n)) advanced the following as contributing factors for this decrease:

- "a) "a smoothing-out" of demand after the initial three years of operation. One needs to total the last two years of operation, which in the case of 1968 and 1969 provides us with an aggregate well in excess of 382, when one combines 1970 qualifications;
- b) a large reduction in *regular* liners/traders; resulting in part in an increase in "occasional charters";

EXAMINATIONS HELD FOR CERTIFICATES OF QUALIFICATION
FOR THE UNDESIGNATED WATERS OF THE GREAT LAKES
FROM 1 JANUARY 1961 TO 31 DECEMBER 1969

Year	Number of Examinations**			Detailed Number of Examinations Passed							
	Total	Passed	Failed† or Not Examined	Type of Certificate			Validity on Great Lakes				
				Original‡	Renewal§	Extension*	Lake Ontario	Lake Erie	Lake Huron	Lake Michigan	Lake Superior
1961.....	522	515	7 (7‡)	500	1	14	515	507	487	351	223
1962.....	238	238	0	210	10	18	238	226	203	159	80
1963.....	341	341	0	170	169	2	341	333	306	255	157
1964.....	297	288	9 (8‡ 1*)	179	94	15	288	281	239	211	137
1965.....	375	373	2 (1‡ 1*)	194	163	16	373	351	313	289	173
1966.....	253	251	2 (2‡)	137	97	17	250	228	213	172	86
1967.....	283	275	8 (2‡ 6*)	114	149	12	281	263	248	225	93
1968.....	184	175	9 (2‡ 7*)	84	83	8	183	172	159	151	49
1969.....	212	207	5 (5‡)	97	105	5	207	185	173	159	48

**During this period, there have been no *Cancellations*.

†All *Failures* due to Rules of the Road, except one who also failed the separate courses subject.

‡*Original Certificate*: first issue.

§*Renewal Certificate*: issued in replacement of a certificate that has expired or is about to expire.

**Extension Certificate*: increased validity issued not less than three months prior to expiration date of the certificate it replaces.

SOURCE: Ex. 1401.

- c) a general decrease in the number of ocean vessels proceeding into the Great Lakes;
- d) a decrease in *cargo* being transported by ocean vessels to and from the Great Lakes;
- e) a currently buoyant charter market favouring sea coast ports."

Under these circumstances, fewer ships' officers would be in a position to meet the two round-trip requirement. It is reported, however, that general awareness of the value of "B" certificates has been generated by recent increases in Great Lakes pilotage costs and by unrest among Great Lakes pilots.

(5) WAIVERS

Both Part VIA C.S.A. and the United States Great Lakes Pilotage Act provide for a *de facto* exemption if a pilot is not available but it is not automatic and can not take effect unless the non-availability is established as a fact by the Pilotage Administration. This doubtless explains why it is referred to as a "waiver".

When a shortage of pilots develops, the waiver procedure enables the Pilotage Administration to grant exemptions selectively to ships with the highest safety factors, and assign the available pilots to those ships which represent the greatest risk either because of their dangerous cargo, large size or lack of manoeuvrability, or their officers' lack of local knowledge or insufficient command of English to use the radiotelephone. Furthermore, pilotage priority is given to the most difficult sectors, e.g., a District pilot will not be sent on a lake assignment if he is needed for an in-District assignment. Re the statutory and regulatory provisions covering the issue of waivers, vide pp. 7-8, 34-5 and 46.

The statutory provision in Part VIA authorizing the granting of waivers (subsec. 375B (4)(a)) has been given a liberal interpretation by Canada. The requirement that the notification of non-availability of pilots (the issuance of a waiver) be given to the vessel concerned by the Deputy Minister of Transport is considered complied with if it is given by the officer-in-charge of the Canadian despatching office concerned on behalf of the Deputy Minister. Furthermore, the words "registered pilot is not available" have been taken to mean that a registered pilot is not conveniently available. Therefore, a waiver would be granted to a vessel whose Master and officers have had substantial experience in the navigation of the waters concerned if the pilots available at the time are needed for ships which lack the same *expertise* and have arrived or are expected within a reasonable period of time.

At the time of the Commission's hearings, it appeared that a more restrictive interpretation was given to the corresponding provision contained in the United States Act (subsec. 8(a)) and a more formal attitude toward waivers was taken by the U.S. Pilotage Administration. In contrast to the

Canadian legislation, the procedure for granting waivers is dealt with in the United States Great Lakes Pilotage Regulations (p. 46). A waiver is not to be issued if the delay caused by the shortage of a pilot is not expected to exceed six hours; a waiver can not be issued by the officer-in-charge but must be obtained from the Administrator through the Coast Guard which will transmit the request together with all pertinent facts, *inter alia*, particulars which may affect safety. It was reported that this procedure took up practically two hours during which the vessel concerned was delayed in order to complete the waiver procedure. This delay, however, is often reduced when the despatcher initiates the waiver procedure beforehand because he has been informed that ships subject to pilotage requirements are expected, knows that some of them are regular traders and realizes that a shortage of pilots is likely to develop.

However, vessels are never forced to accept a waiver and proceed without a pilot. A Master is entitled to decline a waiver and wait until a pilot is available, although he must take his turn with the vessels which require pilotage.

Waivers have been issued for both designated and undesignated waters but, for obvious reasons, more rarely for designated waters. The practice is to give priority to in-District assignments by reserving pilots for periods of peak traffic. The pilots have cooperated by voluntarily forgoing their leave and curtailing their rest period.

The basis for granting waivers in Lake Erie is different than in the other undesignated waters. For lack of a boarding area at the western end, ships in transit must carry their District pilot across the open waters of Lake Erie to Port Colborne. Unless it is considered that a ship would not become a safety risk if allowed to proceed without a pilot in the designated sector extending from Southeast Shoal to the Detroit change-point, she must be delayed in case of a shortage of pilots, even though her Master and officers may be qualified to navigate on the open waters of the Lake. Another reason why a lake pilot group has not been organized for Lake Erie is that it was not believed warranted to appoint lake pilots whose sole function would be to perform pilotage assignments within its undesignated waters, even if these pilots were also registered for Port Colborne and Sandusky. Therefore, waivers for Lake Erie are generally restricted to trips between Port Colborne, Sandusky and the undesignated waters of Lake Erie ports, where no unusual difficulties are encountered.

There are no comprehensive statistics on waivers. The information is available in the daily records of pilotage operations kept by the various Canadian and United States despatching offices but it was considered that the purpose and scope of this Report did not warrant such a time-consuming process. The number of waivers and the reasons for granting them are

factors to be considered when appraising the adequacy of pilotage organization in certain sectors and deciding whether compulsory pilotage should be imposed on some vessels or groups of vessels or whether it creates an unnecessary and artificial demand for service. If a large number of ships which are subject to compulsory pilotage have been able to proceed without pilots, the obvious question arises whether these blanket requirements are realistic as far as the safety of navigation and public interest are concerned. Furthermore, unless waivers are granted only occasionally during times of unexpected peak demand, it must be concluded that there are deficiencies in the organization, poor operational procedures or an insufficient number of pilots on strength. In fact, both Canadian and U.S. Pilotage Administrations were well aware of the waiver situation from year to year although it was not reduced to actual statistics. The number of waivers has been greatly reduced partly due to the decrease in foreign vessels in the Great Lakes system. However, this factor has had an effect only on in-District assignments since the number of lake assignments has shown a substantial increase as the result of the diminishing number of "B" certificate-holders. The main factors have been improvements in pilotage operations, especially appropriate changes in pilot strength in various sectors and the creation of groups of lake pilots. The pilots now have smaller operational areas and less travel. As a result, the wastage of their time has been reduced because, with a few exceptions, they are no longer called upon to travel long distances and wait at distant outports for a ship's return or a fresh assignment.

The following table was compiled from the Port Weller Supervisor's annual reports (Ex. 1023) which contain information on waivers for both District No.2 despatching offices, Port Weller and Port Huron. Unfortunately, they lack some very important details such as whether the figures quoted

Year	Waivers Granted		
	By the Port Weller Pilotage Station		By the Port Huron Pilotage Station
	For Lake Ontario	For the Welland Canal and/or Lake Erie	For the Western Sector of District No. 2 and Lake Huron and Lake Michigan
1963.....	8	20	3
1964.....	65	592	140(151)
1965.....	126	370	98
1966.....	34	57	18
1967.....	12(10)	11	2
1968.....	13	55	11
1969.....	8	43	13

SOURCE: Ex. 1023.

for Port Huron are limited to District trips or whether they include Lake Huron and Lake Michigan trips. The available information on waivers issued at Port Weller segregates them into those for Lake Ontario and those for the Welland Canal, but many of the latter were, as suggested by the evidence, issued to ships engaged in local trade between ports in the undesignated waters of Lake Erie and Port Colborne or Sandusky. It is a matter of regret that similar information is not available for the other despatching stations—Cornwall, Cape Vincent, Detour, Chicago, Duluth and Thunder Bay.

COMMENTS

The difference in attitudes on waivers between the United States and Canadian Administrations is the result of differences in concept of pilotage, organization for the provision of services and, to a certain extent, the method of remunerating the pilots. The Canadian authorities, convinced as they are that compulsory pilotage of any kind is unwarranted for the open waters of the Lakes, feel more inclined to grant waivers for lake assignments to avoid interference with in-District assignments. The most important factor is the difference in status of the officer-in-charge of the Canadian and United States despatching office. In Canada, he is a public servant and the local representative of the Federal Government with no personal interest in the provision of services; in the United States, he is not connected in any way with the United States Great Lakes Pilotage Administration but is a salaried employee of the pilots through their Association. Since the resulting conflict of interests is not conducive to the equitable implementation of the waiver provisions contained in the United States Act, such matters must be dealt with directly by the Pilotage Administration through the Coast Guard which has personnel on the spot to obtain first-hand information about prevailing conditions.

Another factor is that the Canadian Government has taken upon itself responsibility, through the Department of Transport, for administering the pilotage offices designated in the Memorandum of Arrangements as an area of Canada's participation in the organization of pilotage services. In the vital area of the Welland Canal the Canadian Administration is fully aware of its added responsibility when a shortage of pilots develops because this means disruption of canal operations and substantial delays for all maritime traffic, including exempt vessels.

There is also the financial aspect, since granting a waiver means a loss of pilotage revenue. This situation is compounded when the pilots' remuneration is directly dependent upon pilotage earnings, as is the case for United States registered pilots in all sectors. The only Canadian pilots affected are those registered for District No. 1 and Lake Ontario (the other Canadian pilots are salaried employees of the Department of Transport).

3. ORGANIZATION

PREAMBLE

The present scheme of organization is a tentative solution to the problem which arises because Canada and the United States both have territorial rights in the Great Lakes system. It was adopted because time was lacking to devise a more sophisticated and more adequate procedure. Although studies and negotiations between the Canadian and United States Governments and other interested parties commenced a number of years before the opening of the Seaway (pp. 53 and ff.), no agreement had been reached in 1959 on the organization to be set up, and the necessary legislation could not be drafted until this was done. In these circumstances, a compromise was adopted followed by a temporary solution which remains basically unchanged some ten years later.

The main problem to be resolved was the nature and extent of Canadian and United States participation in the organization of the required pilotage service. Neither country alone could enact adequate, comprehensive pilotage legislation, since each was without jurisdiction over the waters of the system beyond its boundaries. A clear example of the situation is found in the unilateral pilotage organization which Canada had set up in 1933 between Montreal and Kingston, i.e., the St. Lawrence-Kingston-Ottawa Pilotage District. All this organization could and did provide was the availability to shipping of qualified pilots. Payment of dues could not be made compulsory since Canada's jurisdiction was limited to Canadian waters. In 1960, it was necessary to detach from the District the international section of the channel (it became the Kingston District) so that the payment of dues could be made compulsory in the wholly Canadian sector which became the Cornwall District (p. 49). Furthermore, the Pilotage Authority was legally powerless to force its licensed pilots to effect transits because this involved navigation into United States waters which were beyond District limits and, hence, outside Canada's legislative jurisdiction. This is also why the Port Weller/Sarnia pilotage service that had been organized by the Shipping Federation of Canada never became a Pilotage District under Part VI C.S.A., although its operation was informally taken over by the Department of Transport (pp. 54-5).

The situation precluded either country from passing separate pilotage legislation without recognizing that the physical circumstances imposed mutual interdependence in this field.

There were a number of possible solutions, all with advantages and disadvantages. Each solution necessarily implied some abandonment of, or encroachment on, sovereignty.

One solution was to give one country the whole responsibility for pilotage (with the possible exception of service in ports). That country would

then sign a treaty agreeing to provide an adequate, efficient system where required and the other country would merely recognize the organization by giving it legal effect in its own waters through the enactment of the necessary legislation. A variant of this solution (as advocated by the Shipping Federation of Canada (pp. 74–5)), would have been to divide the Great Lakes system on a sector basis and enact appropriate legislation to give each country full jurisdiction over, and responsibility for, pilotage in the sectors allocated to it. This has been partly achieved at the administrative level through recent modifications to the organizational scheme.

Another method would have been to create a joint international commission charged with the whole responsibility for organizing pilotage under general policies jointly established by agreements drawn up by both countries. This would have required a detailed agreement, i.e., a treaty defining the nature, function, powers and organization of such a commission and the mechanism for the establishment of joint policy and control, followed by the appointment of the commission and the enactment by each country of a law ratifying the treaty. This procedure was envisaged (p. 60) but, although considered probably the most adequate solution, it was set aside (at least temporarily) because pilotage legislation was urgently needed and time was not available for a lengthy process of studies, negotiations and agreement preceding enactment.

The solution adopted in the circumstances least infringed on the sovereignty of each country. Parallel legislation enacted similar pilotage requirements for shipping, the extension of the legal competency of the pilots of one country in the waters of the other and, by joint Governmental arrangements, equal participation by Canada and the United States at all stages of organization. The result of this compromise solution was an involved, awkward system controlled directly by a dual authority consisting of two distinct and independent Canadian and United States Pilotage Administrations with diverging concepts of pilotage and governed by different and often conflicting principles. The organization of pilotage on the Great Lakes is characterized by disparity of procedure at all levels between Canada and the United States, resulting in constant problems and conflicts for which there appears to be no adequate solution except a fundamental re-organization based on different principles.

The latest amendments to the Memorandum of Arrangements recognized this need and anticipated certain basic changes. The preamble to the 1967 amendment stated:

“In the past six years, with the introduction of newer and larger ships with more sophisticated navigational equipment and altered traffic patterns, pilotage requirements in those waters governed by the agreement have changed considerably. As a result, the present pilotage system and its rate structure, designed to meet the requirements of 1961, do not meet the requirements of today.

Accordingly, the United States and Canada have initiated an overall review of the present pilotage system and its rate structure on the basis of which a new system and structure can be established before the navigational season of 1968."

The target date could not be met and the preamble to the 1968 amendment reported as follows:

"In that amendment, the two governments agreed to initiate an overall review of the pilotage system and its rate structure. While much of this review has been accomplished, a number of areas remain in which further study and coordination with the interested parties is required. These areas include the subjects of "home porting", "open water" pilotage, modification of the "tour de role", assignment of pilots, and the modification of the rate structure to reflect more accurately the relative difficulty of different pilotage assignments. Accordingly, the review is continuing and changes to the system and its rate structure in these areas will be made as soon as they have been determined to be desirable and practicable."

The 1969 Memorandum required the Secretary and Minister to establish consolidated and more efficient billing, collecting and accounting services instead of having these functions exercised separately by each of the various despatching offices, each within its area of jurisdiction. This has resulted in basic changes in the organization of Districts No. 1 and No. 2.

The 1970 version of the Memorandum contains an agreement for a new rate structure based on ships' dimensions to reflect more adequately the relative importance of different assignments. This agreement was immediately implemented by appropriate amendments to the Canadian and United States Great Lakes Pilotage Regulations (pp. 67-8).

(1) CENTRAL AUTHORITY

A prominent feature of the present system is a dual Central Authority presiding over the pilotage service throughout the Great Lakes. Its Canadian and United States components are not only distinct and independent entities but are also dissimilar in composition and function and, at times, governed by different principles. While they operate independently, their jurisdiction coincides at all levels, particularly in the sphere of operations. The necessary coordination is effected through agreements reached by both Governments. Their instrument is the Memorandum of Arrangements which defines the joint policies and directives governing organization and administration.

The functions of the United States central Pilotage Administration are shared between the President of the United States, whose only role is the definition by proclamation of the designated areas (p. 40), and the Secretary of Transportation (formerly the Secretary of Commerce), who is responsible for the implementation of the Great Lakes Pilotage Act of 1960. However, in practice, the United States Central Authority is a separate branch of the Department specially created for this purpose, the *United States Great Lakes Pilotage Administration*, to whose Director the Secretary has delegated by regulations almost all the powers and responsibilities he derives from the

Act (p. 41). Except for defining designated waters, the Director has authority to make all the regulations necessary for implementing the Act and also is responsible for licensing and its related powers.

However, the Act does not authorize him to participate directly in actual service operations. The underlying principle is that pilotage is performed by private entrepreneurs in the number deemed necessary to meet the demand, their availability being a statutory condition of their registration certificates. The Act provides for curtailing the free enterprise system, but in a very limited way and with no possible direct involvement by the Government.

If a voluntary association of pilots exists in a given sector and volunteers to operate a pilotage pool, the Director, if he is satisfied that such association is able to discharge this function adequately, may then authorize the formation of a pool, entrust its operation to the association and establish such rules and regulations as he considers necessary for its operation (for the meaning of pilots' pool under U.S. legislation, vide p. 45). If no pool exists, his sole function with regard to operations is surveillance to ensure that the pilots make themselves available and remain fit and competent. Where a pool exists, his responsibilities for its operations are limited to ensuring that the pilots abide by the rules and regulations he has established and that the association responsible for the pool discharges its obligations properly. If the association fails to do so, he may withdraw his authorization and appoint another voluntary association to operate the pool, provided such association exists and volunteers to accept this responsibility. Failing this, disorganization follows and free enterprise is restored. Then each pilot, alone or with others, must take the necessary steps (including pilot vessel service) to ensure his own availability and to compete with his colleagues for employment. Such a situation nearly occurred in 1970 when the pilots' associations operating the United States pools in Districts Nos. 2 and 3 threatened to go into bankruptcy if their demands for rate increases were not met.

The Canadian Central Authority consists of the Governor in Council, whose sole function is regulation-making in the limited fields under Part VIA C.S.A. (sec. 375c) (vide p. 11), and the Minister of Transport. The only functions explicitly given to the Minister of Transport in the Act are determining the number of pilots and licensing with its related powers (pp. 18 and ff.). Although Part VIA contains no section concerning the operational organization of the service and this field is not one that may be covered by regulations authorized under Part VIA (p. 25), the Minister follows the practice that has been in effect for a great number of years in those Canadian Pilotage Districts where the efficiency and reliability of the provision of services are required in the public interest (Part I, pp. 77 and ff.) and has assumed full responsibility for the administration of the pilot stations created as one of the Canadian responsibilities under the Memorandum of Arrangements. Furthermore, the Canadian Central Administration, by contrast

with its U.S. counterpart, not only directs and manages the service at local level but the Minister is also the employer of Districts Nos. 2 and 3 Canadian pilots. They are his salaried employees, while those in District No. 1 and Lake Ontario have the status of his *de facto* employees. Through his local representatives, the Minister is pool authority (in the U.S. meaning of the term) of U.S. pilots when they come under the jurisdiction of a Canadian pilotage office.

(2) PROVISION OF SERVICES

In conformity with the compromise solution reached by both countries, services were first provided through a type of Sailing Master arrangement but this has since developed towards a true pilotage system. The pilots were at first divided into three distinct groups, each with exclusive jurisdiction within its District but with shared jurisdiction over the adjacent undesignated waters. Hence, District No. 2 pilots had exclusive jurisdiction over, and full responsibility for, providing services in the designated waters of that District, i.e., the Welland Canal and the western sector from Southeast Shoal to Port Huron, and over the undesignated waters of Lake Erie since they are not adjacent to any other District. They also shared jurisdiction and responsibility with District No. 1 pilots in the undesignated waters of Lake Ontario and its ports and, at the other end of the District, with District No. 3 pilots in the huge expanse of Lakes Huron and Michigan and their ports. Experience proved that the dispersal of District pilots over such a wide area was detrimental to operations and to the pilots' *expertise*. Gradually, the District pilots are being relieved of pilotage in undesignated waters and this function is being taken over by lake pilots. One such group was created for Lake Ontario, and a second for Lakes Huron and Michigan. However, District No. 2 pilots still have full responsibility for Lake Erie, and District No. 3 pilots for Lake Superior. District No. 2 has lately been divided into two independent sectors, each with its own group of pilots.

Another organizational feature is parity in the participation of United States and Canadian pilots. Originally, the arrangement was for overall parity with participation of pilots of both countries in each sector. This has now been changed to overall parity, but not necessarily with participation in each sector. This change has so far been implemented only in District No. 2. Pilotage in the Welland Canal sector, which is wholly situated in Canadian territory, now comes under the exclusive administrative jurisdiction of Canada and services are provided by Canadian registered pilots only. The United States pool has complete jurisdiction over the service in the western sector of District No. 2 and, except for the limited participation of Canadian registered pilots in Canadian ports, assignments are carried out by U.S. registered pilots.

(3) DIRECTION OF PILOTAGE OPERATIONS

Considerable progress has been made in sharing responsibility for operational administration. At first, except for District No. 3 and the undesignated waters of Lake Superior which were made the exclusive responsibility of the United States Pilotage Administration, responsibility was shared by placing despatching stations alternatively under Canadian or United States jurisdiction, and not as a function of a District or a distinct group of pilots. Each District except No. 3 came under two administrative authorities, one U.S. and one Canadian, and each pilot came under a number of administrative authorities with control being determined by the place where he happened to be at any given time.

A pilotage office was established at each boarding station. Its functions were to organize, manage and operate the boarding station (including pilot vessel service where required) and to handle the billing, collection and distribution of pilotage fees earned from assignments within its jurisdiction without distinction as to the nationality of the pilots or the groups to which they belonged. Each pilotage office was to be, and has remained, financially self-supporting. Operating expenses are met as they are incurred from earnings collected and are prorated among the pilots' groups according to agreements reached jointly by the Canadian and U.S. administrations.

The nature and scope of the jurisdiction of each pilotage office were defined in the Memorandum of Arrangements, and the coordination of their operations was arranged at local level by the administrative authorities concerned through mutually agreed rules called *Working Rules and Dispatching Procedures*, which were also approved by the U.S. and Canadian Pilotage Administrations. Such approval is required by the U.S. Great Lakes Regulations which give them the status of legislation as far as U.S. pilots are concerned (pp. 43 and ff.). There is no similar provision in Part VIA and, therefore, these rules do not form part of Canadian pilotage legislation (pp. 5, 12, 20-1, 21 and 25). They are nothing more than administrative standing orders since their legality is not based on specific statutory provisions (p. 25). Moreover, the rules for Districts Nos. 1 and 2 became obsolete when their organization was changed in 1968 and 1969.

According to the original scheme, the Cornwall boarding station was made a Canadian responsibility. Following arrangements made with the Cornwall District Authority, it despatched the Cornwall pilots downbound, and District No. 1 pilots upbound, and handled despatching requests in the half of each District situated on both sides of the boarding area. The next boarding area, situated at Cape Vincent, was made a U.S. responsibility. It despatched the pilots whose assignments commenced or finished at Cape Vincent, i.e., District No. 1 pilots for downbound in-District assignments, District No. 1, District No. 2 and Lake Ontario pilots (after lake pilots were appointed) for lake assignments originating from Cape Vincent, and

also handled other pilotage demands within the half of District No. 1 and Lake Ontario situated on each side of the boarding station. The Port Weller pilotage station was made a Canadian responsibility while the Port Huron and Detour stations were allocated to the United States.

Some of these arrangements have since been changed. The whole of the Great Lakes system is now divided into two areas for operational and administrative purposes. The lower part from Cornwall to Port Colborne comes under Canadian administration, the upper part from the Detroit change-point to the Head of the Lakes remains a U.S. responsibility, and both countries have shared but distinct responsibilities over the intermediate waters from Port Colborne to the Detroit change-point. Except as modified for District No. 2, joint participation by pilots of both countries in each sector has been retained.

These modifications, together with electronic developments, have permitted a unified administration (including despatching) within each sector. Efficiency has increased and expenses have been lowered. Cape Vincent's only responsibility is to maintain a boarding area and its despatching and administrative functions are performed by the Cornwall pilotage office. The Port Weller station continues to be responsible for all pilotage operations on the Welland Canal and for the Canadian share of operations between Port Colborne and the Detroit change-point.

(a) Great Lakes District No. 1

District No. 1 is serviced by two groups of pilots (excluding the Lake Ontario pilots whose registration certificates extend to the designated waters of Kingston harbour):

- the Canadian pilots of the Cornwall Pilotage District, whose legal competency has been extended to the five and a half mile sector of the Great Lakes system extending from the upstream District limit to Snell lock (vide Part IV, p. 899);
- the Canadian and U.S. pilots registered for District No. 1, whose legal competency covers the rest of the designated waters of the District, i.e., from Snell lock to the head of the River (re added competency and shared responsibility over Lake Ontario undesignated waters, vide p. 162).

For all practical purposes, the St. Regis/Snell lock sector is dealt with as if it formed an integral part of the Cornwall Pilotage District and District No. 1 began at Snell lock. All aspects of pilotage relating to the St. Regis/Snell lock sector have been dealt with in Part IV of the Report under the Cornwall Pilotage District, to which reference is made. Therefore, in this part of the Report, the term "Great Lakes Pilotage District No. 1" means the sector of the St. Lawrence River extending from Snell lock to Lake Ontario.

Since the opening of the Seaway in 1959, the pilotage organization has been basically modified three times, but these alterations have not been properly reflected in the governing regulations, rules and orders. The result is that, from the legal point of view, the situation has always been a hodge-podge of inadequate and conflicting provisions, a number of which were retained despite the fact they had become irrelevant in the changed factual context. From the organizational point of view, the Cornwall/Lake Ontario sector' (which became Great Lakes District No. 1 in 1961) may be considered in four time stages:

- At the time the Seaway opened in 1959, the pilotage service in the boundary waters of the St. Lawrence River was being performed exclusively by Canadian licensed pilots under the St. Lawrence-Kingston-Ottawa District Pilotage Authority, whose jurisdiction was limited to Canadian waters. The division of this District leading to the creation of the Kingston District in 1960 was an immediate step toward the formation of Great Lakes District No. 1. Pilotage continued to be provided exclusively by Canadian licensed pilots under Canadian management, i.e., the Kingston Pilotage District Authority. District organization and pilotage operations were dealt with in the General By-law (Ex. 432).
- When District No. 1 became operative in the 1961 season through the combined effect of Part VIA C.S.A. and the United States Great Lakes Pilotage Act of 1960 and regulations made thereunder, it extended over all the waters in the sector on both sides of the boundary. As an interim measure until arrangements for the agreed U.S. participation in administration at District level could be made, the service continued to be performed as previously organized under the sole administrative direction of the Kingston Pilotage Authority. However, the U.S. registered pilots participated and the competency of the Kingston District pilots was extended to the U.S. designated waters of District No. 1 and the undesignated waters of Lake Ontario. This is the type of organization which was reflected in the Kingston District General By-law as amended in 1961 which, despite the many changes that have taken place, has not been modified since (Ex. 432).
- With the 1962 season, the District organization was changed to meet the requirements of the Memorandum of Arrangements, i.e., sharing of administrative and operational functions on the basis of pilotage offices (pilot pools). The Canadian Administration's local responsibility was limited to operating the Cornwall pilotage office, while the upstream pilotage office was, in accordance with United States regulations, formed into a U.S. pool whose administration and operations were entrusted to one of the two existing voluntary

associations of District No. 1 United States pilots, the St. Lawrence Seaway Pilots Association. The pilotage office, situated at the upstream boarding station of District No. 1, was relocated from Kingston to Cape Vincent, N.Y. Thus began for District No. 1 the system of two despatching and administrative authorities, both independent and financially self-supporting, each with its own exclusive jurisdiction. The necessary co-ordination was effected through joint rules devised by the two local administrative authorities and approved by the two Central Administrations. The latest of these rules are contained in a document entitled "Working Rules and Despatching Procedures, Great Lakes Pilotage District No. 1" dated February 1, 1965, as amended up to July 10, 1968, and are still in effect (Ex. 432).

- After the dual administrative authority system proved inadequate, a return was made in the 1968 shipping season to the single authority system, and District No. 1 was made for administrative and operational purposes the sole responsibility of the Canadian Administration. The basic change which has now been in effect for two navigation seasons has not as yet been reflected in the Working Rules and Despatching Procedures.

Therefore, at present the only official regulations, rules and orders governing the organization and operation of the pilotage service in District No. 1 are (Ex. 432):

- Kingston District General By-law (P.C. 1960-1573, dated November 17, 1960) as amended for the first and last time on April 27, 1961 (P.C. 1961-622);
- Working Rules and Despatching Procedures, Great Lakes Pilotage District No. 1, dated February 1, 1965, as amended to July 10, 1968.

(i) *Kingston Pilotage District General By-law*

District No. 1 is the only area in the Great Lakes system where a Pilotage District exists under Part VI C.S.A. Because only Canadian waters can form part of a Pilotage District under Part VI, the Kingston Pilotage District consists of only the Canadian part of District No. 1. Re the compatibility of a Canadian Pilotage District created under Part VI with the pilotage system created jointly by Part VIA C.S.A. and the United States Great Lakes Pilotage Act of 1960 (especially a sector of the Great Lakes system consisting of boundary waters), reference is made to pp. 28-30.

Prior to 1961, the pilotage service which had been established under Canadian management in that sector since 1934 as a Pilotage District under Part VI C.S.A. was working satisfactorily (despite the problem of boundary waters) because, on one hand, neither the U.S. Congress nor the State of

New York had legislated in the field of pilotage and, on the other, there was no attempt by Canada to make pilotage compulsory, either directly or indirectly, in the international section of the St. Lawrence River. The Pilotage District scheme of organization—despite the incompatibility of its governing provisions resulting from the fact that some of the pilots' assignments were outside Canadian waters—was, short of enacting *ad hoc* statutory provisions, the only available means of public control to ensure the qualifications of the pilots through the licensing process available to Pilotage Authorities.

The joint enactment of Part VIA C.S.A. and the United States Great Lakes Pilotage Act of 1960 provided for an *ad hoc* licensing scheme specially devised to meet the situation created by the boundary waters in the Great Lakes system, but the Pilotage District organization as permitted under Part VI C.S.A. was retained simply because it was assumed that it provided a method of directing the provision of services by Canadian pilots if they refused to become civil servants (pp. 25–6). When pilotage on the Great Lakes was first organized under Part VIA, the intention was that all Canadian pilots would be Crown employees under the prevailing rate system, but this plan failed as far as District No. 1 was concerned when the Kingston District pilots refused to become salaried employees and insisted on retaining their existing status, i.e., quasi-employees whose remuneration is determined by the dues earned by their services. Under these circumstances, the Pilotage District arrangement was retained, despite the dual licensing process it implied for Canadian pilots, so that the Government could administer the service through the Pilotage Authority.

The Kingston General By-law contains the usual *ultra vires* provisions found in the By-laws of other Pilotage Districts created under Part VI. Its illegality was compounded by the 1961 amendment which was intended to cover the new pilotage organization envisaged by Part VIA. The amendment was obviously an interim measure to meet the new situation where services were to be provided on an equal basis by pilots of both nationalities. It is obvious that the By-law was to be abrogated, or at least modified, when a U.S. voluntary pilots' association would be entrusted with the Cape Vincent pool. Pending such an eventuality, the Canadian Administration was required, as in the past, to take full responsibility for the administration of the enlarged District and the direction of the service.

The 1961 amendment purported to give the Kingston Pilotage Authority full control over all pilotage earnings of Canadian and U.S. pilots and for their collection and sharing (after meeting its administrative expenses) under a pooling system based on availability for duty. Obviously, these provisions had no legal effect because they did not fall within the limits of the delegation of the regulation-making powers of a District Pilotage Authority

appointed under Part VI. In fact, the new provisions inserted in the By-law by the 1961 amendment were merely the details of the joint organization agreed upon by the Canadian and United States Pilotage Administrations.

The main features of the Canadian Pilotage District By-law as amended in 1961 are as follows:

- It applies exclusively to Canadian pilots licensed by the Pilotage Authority, except for pilotage fees and control over pilotage revenues, which provisions are purported to apply to registered pilots as defined in sec. 375A C.S.A., i.e., Canadian and U.S. registered pilots as well.
- The control provided by sec. 15 over the provision of services (despatching) is compulsory only for Canadian pilots whose number on the active list shall not exceed 20; the By-law is silent as to the despatching procedure to be followed.
- The Canadian pilots as a group play only a consultative rôle in the organization; for this purpose, they are represented by the usual Pilots' Committee.
- The Canadian pilots registered for Great Lakes District No. 1 must also hold a licence for the Kingston District in order to comply with Part VI C.S.A. The U.S. registered pilots have been specifically exempted from this obligation by the addition of sec. 356A C.S.A. The licensing requirements contain the usual details found in other similar By-laws but are much more complete than the general requirements contained in the Canadian Great Lakes Pilotage Regulations. Licensed pilots are to be recruited from the ranks of qualified, experienced mariners. There is no apprenticeship as such, but the pilot's *expertise* is to be appraised by his performance and record during one year of probation. As a pre-requisite to licensing, actual experience in the navigation of District waters is required. The candidate must have served as Master or deck officer in vessels trading regularly throughout the District for two of the five years immediately preceding the date of examination. The subject-matters of the examination are stated: local knowledge, Rules of the Road for the Great Lakes, St. Lawrence Seaway Regulations, regulations of the various harbours within the District and other pertinent data. Finally, the By-law establishes the procedure for the appointment and composition of the Board of Examiners.
- With regard to licensed pilots (hence, Canadian pilots), the By-law contains the usual provisions regarding an eyesight and hearing examination, the procedure to be followed in case of unfitness for duty due to physical or mental disability, the general duty and

conduct of pilots and regulation offences. It also purports to give the Pilotage Authority disciplinary powers over licensed pilots for violations of the By-law.

- The By-law purports to make the pilotage fees which are fixed by the Governor in Council in the Great Lakes Pilotage Regulations made under subsec. 375c(1)(e) part of the By-law as pilotage dues. This is an unauthorized delegation of regulation-making powers by the District Pilotage Authority. The conflicting provisions of Part VIA on this subject have not been resolved as they should have been in the Act. The Pilotage Authority can not proceed in this way to give the status of pilotage dues to rates which are to be established and amended by another authority, especially when they are to some degree outside its regulatory jurisdiction, because they apply to services which are partly or wholly rendered outside the District limits.
- Prior to the 1961 amendment, the rôle of the District Pilotage Authority in respect of pilotage earnings was limited to collections. Dues were payable to the Authority but, once collected, had to be remitted in full to the pilots who had rendered the services, since there was no pilot fund and all the District administrative costs were assumed by the Department of Transport. This situation changed basically with the implementation of Part VIA and the Memorandum of Arrangements which required the pilotage service to be financially self-supporting and Canada and the United States to participate jointly in the provision, organization and administration of the service and the costs involved. The new financial provisions of the 1961 amendment were deemed to apply to all pilots registered for District No. 1 (hence, including U.S. pilots) and purported to give complete authority and control over the pilotage revenues of these pilots to the Kingston Pilotage Authority, and to establish their mode of remuneration. All pilotage earnings (including Lake Ontario earnings by District No. 1 pilots) are payable to the Kingston Pilotage Authority, the District Supervisor is the sole collecting agent and any receipts collected by a pilot must be remitted to him. Each month the Supervisor must dispose of all the funds he has accumulated as follows:
 - first, to pay District operating expenses, i.e., his salary, the salaries of other employees of the Authority, office and communications expenses;
 - at the end of each month, to share the net earnings, including fees earned for assignments in undesignated waters, on the basis of time worked by each pilot during the month;
 - to pay each U.S. pilot his share computed as above;

—to deduct from the aggregate share of Canadian pilots the cost of their transportation between Cornwall and Snell lock, and between Kingston and vessels off Alexandria Point, and to pay to each his share of the remaining net revenue.

Sec. 24 of the Kingston By-law deals with "contract pilots". These were transitory provisions which now serve no purpose since the last of the former contract pilots has retired (vide Part IV, pp. 876 and 930). The legal status of these former pilots is worth considering since it is an example of pilotage services being provided within the Great Lakes system by licensed but unregistered pilots. These contract pilots did not come within the scope of Part VIA C.S.A. since they were employed by companies operating vessels excluded from the application of Great Lakes pilotage legislation. However, they had to meet the qualifications and be licensed as pilots because they remained pilots in the Canadian meaning of the term, i.e., they did not belong to the regular complement of ships they were piloting and were prohibited by secs. 354 and 356A C.S.A. from piloting the Canadian waters of District No. 1 unless they held a licence for the Kingston Pilotage District. As licensed pilots, they were bound by the District General By-law and by the statutory provisions applying to licensed pilots. Although there is a provision in the By-law that in case of a shortage of regular pilots they could be required by the District Supervisor to serve in ships other than their company's ships, this provision became partly inoperative since their lack of a registration certificate precluded them from piloting vessels subject to the compulsory pilotage requirements of Part VIA. However, there would have been no legal objection if such pilots had been requested to perform pilotage assignments in excluded vessels.

(ii) *Working Rules and Despatching Procedures*

With the 1962 navigation season, the temporary organization under sole Canadian management ceased and the St. Lawrence Seaway Pilots Association, Inc., took over the operation of the U.S. Cape Vincent pilot station. Co-ordination between the two administrative offices proved to be difficult, the main subjects of contention being the despatching rules and the transportation of Canadian pilots from Kingston to the Cape Vincent boarding area (pp. 217 and ff.). The Canadian Supervisor of Pilots in charge of the Cornwall office commented in his 1962 annual report (Ex. 843):

"The basic rules drawn up for the 1961 Season were accepted for use at both Cape Vincent and Cornwall Offices. However it is noted that under the existing arrangements there could be radical differences in the rules unless agreement was enforced by some means or an other.

Attempts were made to have differences harmoniously settled between the respective pilots' committees but no great success was obtained from these efforts. The toleration of mutual necessity was achieved—no more."

Several differences of opinion had arisen between Canadian and United States pilots. The principal difficulties related to the adoption by the United States pilots, prompted by the Canadian pilots, of despatching rules based on the questionable system of equalization of trips (vide Part IV, Recommendation No. 8, pp. 1020–24). Although the Canadian pilots, in contrast to their U.S. counterparts, had only an indirect and non-official advisory rôle, the Board of Directors of both groups often met and discussed matters of common interest. The Canadian pilots at the Commission's hearings stated that the difficulties they had encountered disappeared after changes occurred in the Board of Directors of the U.S. pilots' association. They pointed out, however, that under the then prevailing organization such difficulties were likely to occur again.

This is the situation which prompted the recommendation made at the Commission's hearings that this dual organization be abolished and District No. 1 be made a full Canadian responsibility with pilotage being performed solely by Canadian pilots under Canadian management. In their brief to the Commission the pilots had already recommended that an agreement be reached between Canada and the United States "for better co-ordination of the current administration of pilotage in the Kingston District." (pp. 70–1).

Both administrative authorities finally agreed upon joint operating rules, the latest version being the document entitled "Working Rules and Despatching Procedures, Great Lakes Pilotage District No. 1" as amended to July 10, 1968. These rules were devised jointly and issued by the two operational authorities: the St. Lawrence Seaway Pilots Association, Inc., in charge of the Cape Vincent pilotage office, and the District Supervisor of Pilots in charge of the Cornwall pilotage office. They were approved by the two Pilotage Administrations.

The purpose of these rules is stated in the preamble (Ex. 432):

"The fundamental reasons for these rules and/or instructions are to establish a system whereby; fair and equitable distribution of work is assured all District No. 1 pilots; provision is made for proper and efficient service to vessels; despatchers and pilots are provided with clear instructions as to despatching procedure; proper control of assignment lists and records is maintained."

In brief, these working rules deal with the following subjects:

General Rules:

- Pilots are not to perform any pilotage service except as directed by the despatchers. In the event of a dispute, the order is to be carried out and the matter brought to the attention of the District Supervisor or the President of the U.S. Association as the case may be.
- Cape Vincent is a mandatory change-point.

- Pilots on board ships are to obtain from the Master the next pilotage requirement and transmit the information two hours prior to arrival at the next boarding station, together with the ship's ETA at that station.
- Pilots are to report without delay to the nearest pilotage station the completion of all assignments.

Tour de Rôle Lists, Absences and Vacations

Pilots are taken on charge by the despatching station where they complete an assignment and are to be despatched according to a tour de rôle based on the equalization system without consideration for nationality. Except for a few special cases, equalization does not apply to turns missed during absences, whether authorized or not. There are provisions for mid-summer vacations. (For the study of the despatching rules for regular and winter seasons, vide pp. 240–2.)

Disciplinary Procedure

- The document defines a series of offences which are considered to render the offender (whether a Canadian or United States registered pilot) subject to disciplinary action (subsec. N-1):

“N-1 Any United States or Canadian pilot who, without good cause:

- (a) refuses or fails to comply with or submit to the appropriate rules, procedures and/or authorities herein;
- (b) refuses to accept an assignment, or obey a despatcher's or supervisor's orders;
- (c) fails to report for or carry out an assignment received;
- (d) fails to report when or where ordered;
- (e) during the course of his duties, boards or services a vessel, or attempts to do so, or otherwise assumes a duty status while intoxicated or impaired by intoxicants or drugs;
- (f) while rendering his service, conducts himself in a manner which is unbecoming a gentleman and brings discredit upon himself, other registered pilots, the pilotage service or his association;
- (g) while rendering his service, refuses or fails to comply with or submit to the applicable rules, regulations, procedures or authorities of the St. Lawrence Seaway Authority, the St. Lawrence Seaway Development Corporation, and of any other Governmental agency;
- (h) is unavailable without advance notice, fails to report or keep the appropriate pilotage office informed as to his whereabouts as required, is unaccounted for, or is otherwise unavailable by application of rule D-1;
- (i) arrives late for an assignment, after receiving the proper notice authorized under C-1;

will be deemed to have violated these working rules and despatching procedures.”

—All violations of the rules and procedures, including the offences just quoted, must be reported to the President of the U.S. association in the case of a U.S. pilot, and to the District Supervisor of Pilots in the case of a Canadian pilot, for investigation and disciplinary action where indicated. Furthermore, all pilots, despatchers and other employees or officers of the pilot stations are required to notify the appropriate administrative authority whenever it appears that a pilot may “be physically or mentally incompetent or too intoxicated to perform his duties and/or whose despatch might therefore endanger the public interest or marine safety.”

Miscellaneous Provisions

Section O deals with the provisions that apply only to United States pilots, such as compulsory attendance at the regular bi-annual meetings of the Association and Corporation, the procedure for the pooling and distribution of pilotage receipts earned by United States registered pilots and the procedure for the payment of the administrative expenses of the Association which have not already been reimbursed as costs of operating the Cape Vincent pool, the creation of a pilots’ tribunal for disciplining United States pilots for infractions of the working rules and despatching procedures and any other authorized rules, orders or procedures of any Pilotage Authority (the expression to be taken in its general and natural meaning). The tribunal is a three-man Rules and Trial Committee elected by the Association membership. It conducts trials in accordance with the rules and procedures it has drawn up and has power to issue warning letters, impose fines and/or penalties not exceeding \$300 and suspension for a period not exceeding one week, or both.

An attempt was made to give these working rules a semblance of legality as far as the Canadian pilots are concerned by stipulating in subsec. P-2 that they were “made by the District Supervisor of Pilots in accordance with the authority given him by Section 3 of the Kingston Pilotage District General By-Law” which purports to give the Supervisor power to make orders for carrying out the By-law effectively and, *inter alia*, to “make orders with respect to . . . the conduct of pilots . . .”. Most of the provisions contained in these working rules far exceed the scope of mere administrative orders and take on the nature of regulations. A Pilotage Authority has no power under sec. 329 C.S.A. to redelegate its regulation-making power (Part I, pp. 289 and ff.) but, even if such redelegation were valid, a delegate can not have more power than the delegant and the Pilotage Authority is unable to make regulations whose application extends beyond the limits of the District. Furthermore, the requirements of the Regulations Act have not

been complied with and these working rules can not be deemed to be regulations for the Canadian registered pilots of District No. 1 since the only regulations permissible under Part VIA C.S.A. must be made by the Governor in Council.

Nevertheless, the Canadian pilots are considered still governed by the Kingston District General By-law for subsec. P-3 of the working rules provides:

"P-3 Canadian Pilots are at all times subject to the Canada Shipping Act and Kingston Pilotage District General By-law. These working rules shall not supersede either the Act or the By-Laws at any time."

This stipulation increases the confusion because many of the provisions of the two documents are incompatible, e.g., the District Supervisor has exclusive jurisdiction over despatching Canadian pilots and collecting and sharing their earnings but the By-law states that sharing should be based on time worked while the working rules provide for sharing on the basis of trips. In this connection it should be noted that not more than 20 Canadian pilots can ever be made available for assignments.

In practice, however, the By-law provisions that conflict with the working rules are merely ignored. Furthermore, they are not, in the practical context, capable of proper application. It would not have been conducive to efficiency if all the District pilots were not to be governed by the same working and despatching rules.

(b) Lake Ontario—Undesignated Waters

Three groups of pilots are legally competent to pilot in the undesignated waters of Lake Ontario. According to the original plan, the pilotage demand in such waters was to be met jointly by the pilots of adjacent Districts. Hence, the registration certificates of Districts Nos. 1 and 2 pilots are endorsed for pilotage in the undesignated waters of Lake Ontario. Since then, as the Sailing Master approach was gradually abandoned, pilots have been appointed with registration certificates limited to the undesignated waters of Lake Ontario and, in order to avoid unwarranted change-overs, their legal competency extended to the designated waters of Kingston harbour. The Lake Ontario pilots now handle such pilotage almost exclusively and have proved most efficient, especially when piloting in and out of Lake Ontario ports.

Despatching and its related administration are shared between the two local administrative authorities responsible for despatching in the two adjacent District boarding areas, i.e., Cape Vincent and Port Weller. Up to 1968, the U.S. pool at Cape Vincent was responsible for despatching to lake assignments originating in Cape Vincent or within the sector of Lake Ontario placed under its jurisdiction. Since 1968, this task and the administrative work related to it have been handled by the District No. 1 Canadian administrative authority from the Cornwall pilotage office. The Canadian

administrative authority in Port Weller is responsible for assignments originating in the Port Weller boarding area or in the sector of Lake Ontario coming under its jurisdiction, including Toronto and Hamilton.

The operations of these two pilotage offices are governed by joint working rules, the latest of which are dated September 1, 1965. They have not been amended to reflect the 1968 change in the administrative organization of District No. 1. These rules are entitled "Joint (Interpool) Working Rules and Dispatching Procedures For Lake Ontario Assignments, District Nos. 1 and 2 Great Lakes Pilotage" (Ex. 1013(A)). They were devised jointly by the U.S. Administrative Authority of the Cape Vincent pilot station, the St. Lawrence Seaway Pilots Association, and the Canadian Administrative Authority at Port Weller, i.e., the Canadian Supervisor of Pilots in charge of the eastern sector of District No. 2. They were approved by the District No. 2 U.S. association of pilots (Lakes Pilots Association, Inc.), the Canadian administration's representative in District No. 1 (the Supervisor of Pilots, Cornwall) and by the two Central Administrations, the U.S. Great Lakes Pilotage Administration and the Canadian Department of Transport. The approval of the lake pilots as a group was not obtained, presumably because as such they have no administrative responsibility.

These rules are drafted along the same lines as the District No. 1 rules already studied. The basic governing principle is established in the preamble: pilotage on Lake Ontario is to be performed primarily by Lake Ontario pilots. The expression "a lake pilot" or "Lake Ontario pilot" is defined as a Canadian or United States pilot registered for service on Lake Ontario only. The pilots of Districts No. 1 or No. 2 are referred to as "District" or "in-District" pilots. What is meant by "Lake Ontario pilotage" is not defined but it appears from the extent of the Lake Ontario pilots' registration that it includes pilotage in the designated waters of Kingston harbour.

The main features of these rules are briefly as follows:

General Rules

- The Cape Vincent and Port Weller pilotage stations are responsible for despatching to Lake Ontario assignments and are to keep each other informed of the disposition of lake and in-District pilots employed on Lake Ontario.
- Each station has the authority to restrict the services of its own in-District pilots to their District and, if necessary, to recall in-District pilots taken on charge, or about to be taken on charge, by the other station.

Disciplinary Procedures

The rules contain a list of offences which are substantially the same as those contained in District No. 1 working rules. A pilot alleged to have committed an offence is taken off the tour

de rôle and marked unavailable. He may not be despatched until he has reported to his home station for whatever disciplinary action is deemed appropriate. Any violation by either lake or in-District pilots is to be reported to the Great Lakes Pilotage Administration, if committed by a U.S. pilot, and to the Port Weller or Cornwall Supervisor, if a Canadian pilot.

Despatching Procedures

Lake pilots available for assignment at a pilot station are given precedence over the pilots of the District where the station is situated, but pilots of the other District are given precedence for a return trip. District pilots are to be returned to their District station if there is no assignment for them within 10 or 12 hours after their arrival at the out station or after their rest period, if one was taken. For details of despatching procedures, vide pp. 240-2.

Lake Pilots Pooling and Availability

Lake pilots, Canadian and United States, are deemed to have agreed to pool all their pilotage earnings for equal sharing among themselves on the basis of days available. Removal from the tour de rôle for cause is for a minimum of one day. Days of absence for illness (not more than five days per season), for authorized absence for family emergency and for other authorized reasons are counted as days of availability. For a more detailed study of the pooling system, vide pp. 322-3.

These rules do not contain a provision similar to the one in District No. 1 working rules to give them (as far as Canadian pilots are concerned) a semblance of legislative authority, for the obvious reason that even the Canadian parts of the undesignated waters of Lake Ontario are outside Kingston District limits. These rules have no binding effect upon the Canadian Lake Ontario pilots because Part VI^A C.S.A., unlike the United States Act (pp. 31 and ff.), does not contain provisions for establishing legislation governing the direction of the service. Since these pilots are not Crown employees, these rules can not be imposed as if they were the orders of an employer, nor can they be imposed under regulations made under Part VI C.S.A. since they are not licensed pilots (Ex. 1541(v)). Furthermore, the Canadian lake pilots operate illegally when they perform pilotage in Kingston harbour because they do not hold a pilot's licence issued under Part VI C.S.A. (Ex. 1541(v)). The exception provided in sec. 356A is limited to pilots registered by the United States licensing authority. Canadian registered pilots must also be licensed by the District Pilotage Authority to be entitled to undertake pilotage in any part of the District. It would be an unwarranted imposition on both shipping and on the service to require a District No. 1 pilot to relieve a lake pilot for a lake assignment involving Kingston if the

lake pilot happens to be a Canadian pilot. Therefore, it is considered that this irregularity should be corrected either by granting the Canadian lake pilots a licence for Kingston harbour or making these waters undesignated.

(c) *Great Lakes District No. 2*

District No. 2 was originally organized along the same lines as District No. 1 but the general inadequacies of this arrangement were increased because the District was an artificial creation. The confined waters are excessive in length and the District is not continuous but is separated by a long expanse of undesignated waters (Part I, Gen. Rec. 8, p. 476).

The downstream limit of District No. 2 at Port Weller is 340 miles from the upstream limit at Port Huron. The District consists of two sectors of designated waters separated by 190 miles of the open waters of Lake Erie, i.e., the 25-mile Welland Canal where transits still average 12 hours, and the 125-mile stretch from Southeast Shoal to Port Huron.

Like District No. 1, District No. 2 was originally serviced by one single group of pilots of both nationalities with equal territorial competency who individually participated in the same way and to the same extent in meeting the pilotage demand which came under the group's responsibility. Their registration extends to both sectors of the District and is endorsed for the undesignated waters adjacent to District No. 2, i.e., all the Great Lakes except Lake Superior, including all their ports and harbours. Up to 1970, their services were available throughout this huge area. Since the 1970 reorganization, the District has been serviced by two separate groups of pilots:

Welland Canal pilots, all Canadian registered pilots and prevailing rate employees of the Department of Transport with *de facto* exclusive jurisdiction over the Welland Canal sector and shared jurisdiction over the adjacent undesignated waters;

District No. 2 western sector pilots, divided into two groups, each with its exclusive jurisdiction:

- a few Canadian registered pilots, also Department of Transport prevailing rate employees, whose field of operations is limited to movages in and trips from (but not into) the Canadian ports on the Detroit and St. Clair Rivers;
- U.S. registered pilots with *de facto* exclusive jurisdiction over the rest of District No. 2 western sector and shared jurisdiction in adjacent undesignated waters.

The pilotage organization of the Port Weller/Sarnia area, which became Great Lakes District No. 2 in 1961, may be divided into three stages (for developments prior to 1959, vide pp. 53–8):

- (i) When the Seaway opened in 1959, the Port Weller/Sarnia services were performed by a group of Canadian and U.S. pilots under the

administrative direction of the Department of Transport through two pilot stations, Port Weller and Sarnia, one at each end of the District. There was no pilotage in the open waters of the adjacent Lakes, including Lake Erie, despite the fact that pilots had to travel across it, since there was no boarding station at the western end.

- (ii) The original organization of Great Lakes District No. 2 under dual management in accordance with the 1961 Memorandum of Arrangements had the downstream pilot station at Port Weller under Canadian management and the upstream pilot station (relocated from Sarnia to Port Huron) under U.S. management, each responsible for the pilotage operations originating from its pilot station or within its half of the District and of the adjacent undesignated waters as then defined in the Memorandum. The pilots' competency had by then been extended to all undesignated waters adjacent to District No. 2.
- (iii) The 1969 *de facto* partition of the District made the Welland Canal to all intents and purposes a separate District under Canadian management, and the western sector of District No. 2 separate under exclusive U.S. management. Both administrations have shared, but distinct, jurisdiction over Lake Erie, and shared jurisdiction with the administrative authority of the next District over undesignated waters separating their Districts.

The organization first adopted for Great Lakes District No. 2 violated all the basic principles of pilotage organization and was an anomaly by normal pilotage standards. This caused constant problems and disputes which only radical changes could resolve. The main weaknesses were:

- (i) grouping two separate, remote areas of confined waters in one District when each should have been a separate District;
- (ii) failure to establish a boarding station at the downstream end of the western sector;
- (iii) retention of the Sailing Master concept, as a result of which the District pilots were required to provide pilotage in the huge expanse of adjacent open water.

The immediate cause of this deplorable state of affairs was that the re-organization of the pilotage service (which the Shipping Federation of Canada had initiated at its own expense) had not been completed when District No. 2 was created in 1961.

The Shipping Federation's aim when it began re-organizing the pilotage system on the Great Lakes for the benefit of its members in 1958 was the implementation of the proposal it had made during the public hearings held in the United States in 1957 on Bill HR 7515 (p. 53), i.e., that organized

pilotage be limited to the restricted areas of the connecting channels of the Great Lakes system. The creation of the Port Weller/Sarnia pilotage area was merely a first step in that direction.

Obviously, the fundamental principles of pilotage organization as well as the geographical features of the transit route required the creation of two separate pilotage services, one limited to the Welland Canal sector with a boarding area at both ends, and a second for the confined waters of the connecting channels between Lake Erie and Lake Huron, again with a pilot station and a boarding area at each end.

The Port Weller/Sarnia pilotage area was a bold departure from the former Sailing Master system but was only a first step toward the desired goal. No doubt the cost of establishing a pilot station and a boarding area at the western end of Lake Erie prevented the immediate implementation of the whole proposal. Port Weller, Port Colborne and Port Huron present no more problems than are met when a boarding area has to be established in open waters for pilotage into any port. The situation differs at the western end of Lake Erie on account of shallow flats which necessitate many miles of confined waters, and the absence of a port, or a centre easily accessible by road, in the immediate area where a pilot station can be established and from where a pilot vessel service to and from the boarding area can be operated. The head of the approach channel to the Detroit River is situated eight miles from the nearest headland on the Michigan side and nine miles from the Ontario side. An alternative site would have been some 34 miles eastward from the head of the east outer channel, i.e., in the area of South-east Shoal, at the entrance to Pelee Passage. Other possible sites are on the Ontario side of the Lake, west of Pelee Passage, where there is deep water about a mile from the shore. Such sites would require vessels to detour somewhat from their direct route and navigate without a pilot through Pelee Passage, the only narrow section in the area, but this should not inconvenience a qualified mariner any more than crossing the Straits of Mackinac between Lake Huron and Lake Michigan. Since the cost of establishing and maintaining a boarding station at any of these sites was estimated more expensive than at the other boarding stations located in the immediate vicinity of the channel, the open waters of Lake Erie were retained in the pilotage area for the time being.

The pilotage service was taken over in 1959 by the Department of Transport which was administering it as such when negotiations began for the organization of the contemplated joint pilotage service for the Great Lakes system. As seen earlier, the initial proposal by United States interests was the perpetuation of the former Sailing Master system. The Canadian Government, with its considerable experience in pilotage organization, especially on the St. Lawrence River, took the opposite position and advocated the Shipping Federation's proposal. The compromise reached as a temporary

measure until the organization could be revised in the light of actual experience accepted the re-establishment to a certain extent of the Sailing Master system in that a limited pilotage requirement was imposed for navigation in the open waters of the Lakes, and the Port Weller/Sarnia area as then operated was changed to District No. 2.

The Canadian Government and the Shipping Federation have since continued to advocate the complete abolition of pilotage requirements in the open waters of the Lakes and the establishment of a boarding station at the western end of Lake Ontario at Southeast Shoal (hence, the partition of the District). These proposals have so far been opposed by the United States authorities, but the original organizational concept was basically modified in practice. The Sailing Master concept has been abandoned and the two sectors of District No. 2 have become two separate, independent entities.

A first step in the re-organization of the District was the gradual withdrawal of District No. 2 pilots from undesignated waters pilotage on Lake Ontario and on Lakes Huron and Michigan. This resulted from the creation of two lake pilot groups and a gradual increase in the number of lake pilots. The Port Weller District Supervisor stated in his 1963 Annual Report (Ex. 1023):

"The use of lake pilots on Lake Ontario and Lakes Huron and Michigan restricted district pilots to their own district to a large extent and proved beneficial to the entire district operation. It is hoped a similar condition will prevail next season."

Great operational difficulties were met from the beginning because of the size of the District. In his 1965 Annual Report, the District Supervisor of Pilots, Port Weller, recommended the partition of the District:

"We wish to offer for your consideration a proposal that the district be made more flexible or manageable by subdividing into different areas, and creating pools of pilots at different places. We have in mind a station at Detroit. All pilots embarking and debarking at this spot. Ships in Toledo and Detroit could be serviced from this pool. At Detroit there would be no difficulty with pilot boats or weather. The cost would be considerably less than in more exposed areas."

Because the District was not subdivided into two separate sectors, each provided with its own group of pilots, and all pilotage requirements were still met by the two pilotage stations located far apart at each end of the District, there continued to be a considerable wastage of the pilots' time. The Port Weller District Supervisor complained in his 1966 Report:

"The ports of Toledo and Detroit were particularly congested with many ships having only a few hours cargo work before sailing, as a result, pilots were detained on board these vessels, anticipating early departure; in other cases ships were anchored in the stream off Detroit and some off Toledo 13 miles out in the lake with pilots aboard. An all out effort was made to remove pilots from these vessels when possible. This met with moderate success."

"It is obvious that the needless detention of pilots aboard ships waiting to handle cargo is the major cause of pilot shortage. The need for positive action is apparent since methods previously tried have met with little real success."

The compulsory removal of pilots at Detroit and Toledo upon arrival at the dock or a safe easy anchorage appears to be the answer.”

In 1968, the Canadian and United States authorities decided to establish on a trial basis a change-point at Detroit but without the partition of the District it could not succeed. There were also a number of contributing factors related to the operation of the U.S. pool at Port Huron which led to the abandonment of the experiment after a few days (vide pp. 255–6).

Effective the beginning of the 1969 season, District No. 2 was formally divided into two *de facto* separate, independent Districts, at least from the operational point of view, each with its own group of pilots, and a mandatory change-point was established off Detroit.

The “Working Rules and Dispatching Procedures Great Lakes Pilotage District No. 2” dated May 15, 1967 (Ex. 1012) are the latest set of rules for the District. As of December 1970, they had not been modified to reflect the basic organizational changes since they were drafted. New rules are being prepared (see p. 259) but, in the meantime, the 1967 rules are being followed in both sectors to the extent they do not conflict with the new system. Like the District No. 1 working rules, they have been devised by the two administrative local authorities who, in 1967, were jointly responsible for pilotage operations in District No. 2, i.e., the Canadian District Supervisor in charge of the Port Weller pilotage station and the Lakes Pilots Association, Inc. responsible for the operation of the U.S. pool at Port Huron. These rules were approved by both Canadian and U.S. Great Lakes Pilotage Administrations.

Like other working rules, their purpose is three-fold as stated in the preamble:

- to establish a system assuring the pilots a fair and equitable distribution of work;
- to provide vessels with proper and efficient service;
- to provide pilots and dispatchers with clear instructions on despatching procedures and proper control and maintenance of assignment lists and records.

The main features of these rules are as follows:

Definition of Administrative Jurisdiction

- (i) The Port Weller pilotage office’s jurisdiction extends over all assignments originating at Port Weller, in the Welland Canal area and at Cleveland or Port Stanley or any other Lake Erie port east of those two ports.
- (ii) The Port Huron pilotage office’s jurisdiction extends over all pilotage assignments originating at Port Huron, in the western sector of District No. 2 and at Lake Erie ports situated west of Cleveland and Port Stanley.

This provision was not amended to reflect the 1968 extension of the Port Huron office's jurisdiction on the U.S. side of Lake Erie eastward up to and including Ashtabula (pp. 255–6) or the 1970 reorganization.

Disputes over Despatching Orders

These are to be settled by the administrative authority with jurisdiction over the locality concerned, irrespective of the nationality of the pilot. If a dispute can not be settled immediately, the despatching order is to be carried out and the dispute attended to later; if it can not be settled at the local level, it is to be reported for joint adjudication by the President of the Lakes Pilots Association, Inc. and the Port Weller Supervisor.

Definition of "Pilotage Authority"

For the purpose of these rules, this expression means the Canadian Supervisor of Pilots at Port Weller and the Lakes Pilots Association, Inc. acting through officers delegated by the Association for this purpose. These rules purport to give these two so-called Pilotage Authorities power to redelegate their authority to despatchers or any other employees.

Pilots' Source Forms

Each pilot is responsible for completing his source form on which, *inter alia*, he should enter times and information regarding boarding, leaving a vessel, arrivals and departures from harbours, anchoring and departures from anchorages and passing Port Colborne, Port Weller, Southeast Shoal and Lake Huron Lightship, the name of the relief pilot at lock 7 and indicate whether pilotage was performed at the Master's request in Lake Erie, as well as any unusual circumstances. Separate source forms are to be filed for in-District and lake assignments. Source forms must be signed by the Master who is also to endorse specifically any performance of Lake Erie pilotage.

Despatching Procedure

In-District despatching is to be carried out according to a strict tour de rôle, i.e., in the order that names appear on the assignment list, names being added at the bottom of the list of the pilot station in whose jurisdiction the pilot is at the moment, at the time specified in the rules—generally as he becomes available for duty. When a pilot's turn comes, he may be sent to an in-District or lake assignment, the order of despatching among pilots on lake assignments being governed by the appropriate joint interpool working rules. A few pilots are to be made available at Port Weller

on the basis of a 12-hour turn of duty as harbour pilots for the purpose of bringing upbound ships from the anchorage area to lock 1. For details of the despatching rules, vide pp. 257 and ff.

Discipline of Pilots

Like those previously studied, these rules contain a list of specific offences which are in substance the same as those on pp. 160–1. The alleged commission of any of these offences results in the pilot concerned being taken off the assignment list for at least 24 hours, to be reinstated only when directed by the appropriate "Pilotage Authority", to whom the case is to be referred for investigation and disciplinary action if indicated.

The rules also contain certain provisions applicable only to U.S. pilots and U.S. stations which, *inter alia*, deal with the disciplinary powers of the Lakes Pilots Association over the U.S. pilots, whether or not they are members of the Association.

Subsection P-2 stipulates, "Canadian Pilots are also subject to the disciplinary measures contained in the Canadian Great Lakes Pilotage Regulations and the General Departmental policy on discipline promulgated by the Deputy Minister of Transport."

The District No. 2 working rules do not have the binding effect of legislative provisions in so far as they apply to Canadian pilots but they are binding as orders issued by their employer, the Canadian Government or the Department of Transport on its behalf.

(d) *Lake Huron/Lake Michigan Undesignated Waters*

Pilotage in this part of the Upper Lakes comes under the joint competency of three groups of pilots: District No. 2 and District No. 3 registered pilots whose registration certificates are endorsed for that sector, and the pilots whose registration certificates are limited to that sector, i.e., the Lake Huron/Lake Michigan pilots. Lake pilots have been appointed officially as such since 1965 but before that some District pilots had been exclusively reserved for lake assignments. At present, the lake pilots handle about half the pilotage demands in this sector.

The pilotage operations in the Lake Huron/Lake Michigan sector are now (and always have been) directed and administered by the local U.S. administrative authorities responsible for the Port Huron and Detour pilot stations, i.e., the Lakes Pilots Association, Inc. and the Lake Superior Pilots Association, Inc. respectively, and the pilot station jointly established by the two authorities at Chicago. There has never been any Canadian participation in the direction of the service in this sector.

The "Joint (Interpool) Working Rules Great Lakes Pilotage Districts Nos. 2 and 3" date from October 25, 1963 (Ex. 1013(B)). They have not

been amended since, despite the subsequent creation of the lake pilots group. However, their provisions remain applicable *mutatis mutandis* because the rules provided for the allocation of pilots of both Districts as lake pilots (the system in force prior to 1965).

These rules were drawn up by the two U.S. pilots' associations concerned with the Port Weller Canadian Supervisor of Pilots. They have been approved by the U.S. Administrator but do not purport to have received the approval of the Canadian administration.

These rules are based on the same principles as the joint interpool rules for Lake Ontario:

Definition of Administrative Jurisdiction

- (i) District No. 2 station, Port Huron, makes all lake assignments originating there or from any Lake Huron port closer to Port Huron than Detour;
- (ii) conversely, District No. 3 station, Detour, is responsible for lake assignments originating there and for other assignments closer to Detour than Port Huron;
- (iii) the Chicago pilotage office is responsible for all assignments originating in Lake Michigan.

Lake Pilots

They have precedence over District pilots except for assignments which would return a District pilot to his District.

District Pilots

They may be recalled to their District at any time and must be returned if no return assignment is expected within 12 hours of their arrival.

Despatching Disputes

These are to be settled by the official of the Association with jurisdiction over the locality concerned. If no solution can be reached, the dispute is to be reported to, and resolved by, the Administrator, United States Great Lakes Pilotage Administration, no distinction being made when the offender is a Canadian registered pilot.

These rules do not have the binding effect of legislative provisions on Canadian pilots. The situation here is the same as in District No. 2 as far as the effect of the working and despatching rules on Canadian pilots is concerned (pp. 257-9), with the added difference that for operational purposes the Canadian pilots in that sector come exclusively under U.S. management.

(e) *Great Lakes District No. 3*

Pilotage services west of Detour are provided by a single group of pilots composed of U.S. registered pilots and a few Canadian registered pilots. The U.S. pilots have the same status as in the other Districts, i.e., they are self-employed but are forced into compulsory partnership under the pool arrangements in the United States Great Lakes pilotage legislation. On the other hand, the status of the Canadian pilots is the same as in District No. 2, i.e., they are Canadian Government employees under the prevailing rate system who have been placed under the authority of the U.S. pool for despatching purposes.

The original concept of equal participation in administration in each District was never applied to District No. 3 which has been under U.S. management since its creation. The only Canadian participation is at the policy level through the Memorandum of Arrangements and at the service level through the presence of a few Canadian registered pilots. There is only one official pilot station (Detour) whose operation has been entrusted to the local U.S. Pilots' Association, the Lake Superior Pilots Association, Inc.

At the Commission's hearings it was stated that the Department of Transport maintains only very slight contact with the Canadian pilots of District No. 3, although they are its employees. It appears that the presence of Canadian pilots in District No. 3 is merely a matter of allowing them to work in that District in order to keep a Canadian stake there.

According to the original concept of organization, the pilotage demand in the undesignated waters of Lake Superior and its ports became the responsibility of the pilots of District No. 3, the only adjacent District. In fact, St. Marys River and Lake Superior and its ports are considered one huge District as far as pilotage is concerned. This explains why, in contrast to the situation that developed on the other Lakes (except Lake Erie), no pilots were ever appointed solely for the undesignated waters of Lake Superior. The territorial competency of the District No. 3 pilots also extends to the undesignated waters of Lakes Huron and Michigan.

Here again, it was the Shipping Federation which assisted in the formation in 1959 of the third pilotage area consisting of the confined waters of the connecting channels between Lake Huron and Lake Superior which was to become District No. 3 under Great Lakes pilotage legislation. The service was provided by a number of U.S. pilots who had been serving in that area and who grouped themselves and formed the association which still exists today. However, the Shipping Federation, in conformity with the organizational principles it was advocating, urged the formation of separate local pilotage services in the main ports of Lake Superior, i.e., Duluth/Superior and Fort William/Port Arthur, with no pilotage in the open waters of Lake Superior or on Lake Huron or Lake Michigan.

This was the actual situation when the connecting channel consisting of St. Marys River and the Sault Ste. Marie locks became the designated waters of Great Lakes District No. 3. Because of the compromise solution on pilotage in the open waters of the Lakes which Canada had to accept, this ideal organization was radically changed. The competency of the District No. 3 pilots was extended to all adjacent open waters with exclusive jurisdiction on Lake Superior and in its ports, and shared jurisdiction with District No. 2 pilots over Lake Huron and Lake Michigan and their ports. By that time, privately operated port pilotage had disappeared. Requirements at Fort William/Port Arthur had been met for some years by two pilots whom the Minister of Transport had registered and stationed there for local services pending the organization of the District. This arrangement was taken over by the U.S. pilots' association when it was authorized to form the pilots' pool for District No. 3. A pilot station was established at Duluth/Superior and a few District No. 3 pilots were stationed at Fort William/Port Arthur to attend to port requirements when not on translake assignments (p. 273).

The provision of services is governed by the "Pool Working Rules and Dispatching Procedures Great Lakes Pilotage District No. 3" as amended March 1, 1965 (Ex. 1090(B)), which were drawn up and issued by the only administrative authority involved, the Lake Superior Pilots Association, Inc., and approved by the United States Great Lakes Pilotage Administration. There was no official Canadian participation at any stage.

The rules set up a unified service for District and Lake Superior assignments and port pilotage at Thunder Bay and Duluth. They combine the operational features common to District and Interpool Rules. The main features are:

- Apart from the open waters of Lake Superior, three pilotage areas have been established: the designated waters of the District, Duluth/Superior and Thunder Bay (Fort William/Port Arthur).
- The pilots are divided into "assigned area pilots" and "general assignment pilots".
- The number of pilots to be attached to, and stationed in, each area is determined by experience to meet the local demand. Before the opening of the navigation season, the United States pilots choose by order of seniority the area to which they wish to belong; when the area positions are filled, the rest of the pilots become general assignment pilots. The Canadian pilots are rotated through all areas and categories in order to participate in all phases of the workload and earnings of the District.
- Separate assignment lists are kept at each place for the various types of assignment, and among pilots of the same group a strict *tour de rôle* applies.

- Local work is normally done by the area pilots of the locality who, in addition, will be given a translake assignment if no pilot from another area is awaiting a return trip and no general assignment pilot is at the station concerned awaiting assignment. General assignment pilots are given priority over area pilots for translake assignments.
- An area pilot may not be unduly retained in a distant area and, unless a return trip is expected within the specified time, he must be returned to his own area by land transportation. However, all pilots are liable to be transferred by land to any point in the District where a shortage of pilots has developed.

Like the working rules in other Districts, there is a list of offences which here automatically entail two administrative punishments. First, there is punishment resulting from the application of a special rule, i.e., the offender is marked unavailable and taken off all assignment lists for 24 hours with the pecuniary loss this may entail. When the 24-hour period is up, provided he has personally notified the station that he is now available, he is placed first on the translake list ahead of all pilots on station and available but behind those already ordered, and at the bottom of all the other lists. Second, the infraction also renders him liable to disciplinary action by the Pilots' Association's Examining Board in the case of a United States pilot and by the Canadian Authority in the case of a Canadian pilot.

For translake assignments to Lake Huron and Lake Michigan, District No. 3 pilots are governed by the Interpool Rules. When outside their District, they come under the jurisdiction of the Port Huron District No. 2 pilotage office and the Chicago Joint District No. 2 and No. 3 out-District office for return assignments.

4. PILOTS

(1) NUMBER OF PILOTS

In a pilotage organization where the provision of services is regulated administratively, several questions are interrelated: the number of pilots, workload and, if the organization is to be financially self-supporting, administrative costs and rates. In the Great Lakes system, other factors arising from the joint organization further complicate matters.

The exercise of the pilots' profession on the Great Lakes is not open to all qualified candidates since both Part VIA C.S.A. and the United States Great Lakes Pilotage Act make provision for limiting the number of pilots. Part VIA deals with the matter only indirectly: it gives the Minister power to fix the number of Canadian registered pilots but remains silent on the subject of the criteria by which he is to be governed in the exercise of this

apparently discretionary power (p. 11). However, the Canadian Government is bound in this respect by the United States/Canada agreement contained in the February 19, 1960, exchange of aide-mémoire (pp. 61-3).

The United States Great Lakes Pilotage Act also authorizes fixing by administrative decision the permissible number of pilots but goes further by establishing the criteria by which the Secretary is to be guided, i.e., meeting the demands created by the pilotage requirements imposed on ocean-going vessels, equitable participation by the registered pilots of both countries in the provision of services and authorization for the Secretary to arrange with his Canadian counterpart, the Minister of Transport, the number of pilots to be registered in each country (subsec. 4(d)).

In the first Memorandum of Arrangements, the Secretary of Commerce and the Minister of Transport agreed in 1961 on the method of achieving such equitable participation by pilots of both countries, i.e., overall parity in the number of Canadian and United States pilots in the system with participation by pilots of both nationalities in all parts of the service, although not necessarily in equal numbers at the local level. This aim, however, could not be attained forthwith, mostly because there were insufficient qualified U.S. candidates to meet the U.S. quotas. The target year to achieve parity was set at 1965 and interim establishments were agreed on, subject to periodic revisions. Except in District No. 1 where the number of available Canadian pilots exceeded the agreed establishment by four, all vacancies and/or additional pilot requirements were to be filled by United States registered pilots.

Overall parity of numbers was reached in June 1964 and the transitory provisions of the 1961 Memorandum were deleted in 1966. The Memorandum of that year merely stated that the Secretary and the Minister were to determine the number of pilots to be registered and the waters for which they were to be registered, and that "United States and Canadian registered pilots shall participate equally in the pilotage services required on the Great Lakes so that there shall be an equal number of Canadian and United States registered pilots." That year an exception to the rule was made because of the legal problem created by the fact that the St. Regis/Snell lock six-mile sector was being serviced by Canadian licensed pilots of the Pilotage District of Cornwall who did not hold registration certificates. It was agreed that these pilots would be registered under Part VIA C.S.A. for services in that sector (Part IV, pp. 899 and ff.), the total of these certificates to count as two Canadian certificates for the purpose of calculating parity. The latter part of this provision was deleted in 1968 and these accessory and limited certificates no longer counted in the calculation.

Parity was not achieved in 1968 when it became necessary to reduce the establishment; uniform reductions could not be made, no doubt on account of the commitments arising from permanent registration certificates. Under the circumstances, this rigid requirement was relaxed in the 1969 Memo-

random by the addition of the phrase "as far as practicable". Except for the 1961 version, the Memorandum did not thereafter deal with the actual number of Canadian and United States pilots, either on a local basis or overall; this was left to be determined by agreements at the administrative level.

The application of the rules that normally govern fixing the number of pilots in a given locality is complicated by several situations and considerations resulting from the strange and unorthodox way pilotage was organized in the Great Lakes system. Normally, the main criterion is that the number of pilots should be those needed to meet the expected demand for pilotage in the locality concerned during lengthy peak periods without the pilots being overworked, but, since the day-to-day demand is quite unpredictable, it would be a waste of the pilots' time to attempt to meet peak demands of short duration. Irregular demands are characteristic of pilotage and the pilots should expect to assume a heavier workload for short periods (as they have always willingly done) and, in the circumstances, the non-availability of a pilot for a reasonable period of time is a normal, unavoidable inconvenience which shipping should be expected to bear with. Since recurring fluctuations are predictable, the number of pilots should not be increased simply to permit periodic holidays fixed in advance but the pilots should be expected to take their holidays and prolonged rest periods in turn when the demand for pilotage is low, subject, however, to be recalled if the situation changes. Unless navigation is year-round, there should be no system of annual vacations during the navigation season; instead, annual holidays should be taken during the winter months.

A further rule applies when the pilots' remuneration depends upon fees earned by their services. This brings up the whole question of their remuneration and the cost of the service to shipping because, in these circumstances, a larger number of pilots means smaller remuneration unless rates can be raised without becoming unreasonable (Part I, p. 143). On the other hand, not only should the Authority strive to provide the pilots with adequate remuneration commensurate with their responsibilities and the quality of their services, but also the combination of their remuneration and other service benefits should be an incentive to attract candidates with the highest qualifications.

The application of these general rules was extremely complicated in the Great Lakes system for a number of reasons, *inter alia*:

- the principle of parity in the number of Canadian and U.S. pilots, and the requirement that pilots of both nationalities should participate in the provision of services in each sector;
- the disparity of status between pilots performing similar assignments;
- the loss of pilots' time on board vessels due to circumstances beyond their or their organization's control;

—the waste of expert services and pilots' time due to the application of the Sailing Master concept.

The requirement of overall parity is an artificial element which was one result of the original concept of equal U.S. and Canadian participation in the organization, administration and provision of services at all levels and in all sectors. This original system has not proved efficient and has gradually been amended so that the parity requirement has lost its original importance, e.g., it no longer applies in the Welland Canal sector which is now under exclusive Canadian management and where all services are provided by Canadian pilots.

This 1969 re-organization of District No. 2 also corrected the disparity in the pilots' status. In theory, the problem remains for the District No. 3 and Lake Huron/Lake Michigan pilots but, in practice, there is no serious difficulty because the two sectors concerned are under U.S. management and the great majority of the pilots are U.S. citizens.

Disparity in status causes a detrimental conflict of interests. While the Canadian Authority is bound to assure its pilot employees adequate, reasonable working conditions and, therefore, will consider the number of pilots mainly in relation to a fair distribution of the workload, the U.S. Authority must give primary consideration to the effect on the remuneration of the U.S. pilots who are compelled to belong to a pool and receive a share of the net revenue. As Crown employees, the Canadian pilots consider that an increase in their number improves their working conditions but to the U.S. pilots this means less remuneration. This basic conflict of interests has been a continuous source of disagreement and dispute between Canadian and U.S. pilots. In the working rules for District No. 2 an exception had to be provided to exclude the U.S. pilots from the mandatory changeover at lock 7, an amendment for which the Canadian pilots had been pressing for many years in order to improve their working conditions. District No. 1 and Lake Ontario pilots are not faced with this problem because the status of the Canadian and U.S. pilots there is the same.

In addition to being very unpopular with the District pilots and a serious waste of *expertise*, the Sailing Master concept caused a considerable loss of time which necessitated the appointment of a larger number of District pilots than would otherwise have been needed. Although the District pilots' territorial competency continues to extend to the open waters adjacent to their District, to all intents and purposes the Sailing Master concept has now been abandoned (except for District 3 pilots) and now lake pilots have completely replaced Districts 1 and 2 pilots for assignments on Lakes Ontario, Huron and Michigan and in their ports.

The loss of pilots' time on board due to congestion in the locks is beyond the control of the pilotage service and is unavoidable when the traffic exceeds Seaway capacity. Great progress has been made in this

respect in recent years by better planning and improved lockage procedure (pp. 91 and 108 and ff.), e.g., the average transit time for the Welland Canal (the sector worst affected) was reduced from an average of 20 hours to 12 hours.

The imposition of unwarranted pilotage requirements for the purpose of increasing revenue is both abusive and self-defeating. There is a tendency to resort to this expedient when the aggregate income is considered insufficient to meet expenses and provide the pilots with adequate remuneration. The problem becomes particularly acute when there is a decrease in the demand for pilotage, such as occurred in recent years, and has led the U.S. administration to try to deny unregistered pilots the right to provide services to ships which do not come under, or have complied with, the compulsory pilotage requirements (p. 123). It also encouraged the Cape Vincent pool to try to trick Masters of vessels which had the right to dispense with a registered pilot on board on Lake Ontario to employ a registered pilot for pilotage in Hamilton and Toronto instead of a port pilot (p. 128-9). Unless the decrease is only a temporary fluctuation, the obvious solution is an appropriate decrease in the pilots' strength, and this has been the remedial action taken in recent years. However, a reduction in strength is a slow process if all registration certificates are of a permanent nature, in which case it can be achieved only through normal attrition. Since an immediate decrease in numbers is not practicable, pilots other than Canadian Crown employees asked for a substantial increase in pilotage rates. Their demands were partly met but the Canadian veto on granting the full increase resulted in strike action by some groups of U.S. pilots and threats by U.S. associations operating pools to declare bankruptcy (p. 293).

Re statistics on pilots' establishment and strength, reference is made to the Statistical Report Great Lakes Pilotage, 1968, reproduced as Appendix A. Table 1 of Part I gives the establishment agreed upon between the Secretary and the Minister since 1961, broken down by District and by Canadian and U.S. pilots. Table 2 of Part I gives the same information but shows the actual strength at the end of each year. These tables, however, do not convey a true picture because they do not segregate District pilots from lake pilots who are attached to the District for administrative purposes only. The required information was sought and obtained from the Department of Transport (Ex. 1541(o)).

(a) *District No. 1*

The following two tables provided by D.O.T. show the fluctuation over the years of the pilot establishment and the actual strength of Canadian and United States pilots for District No. 1 and for Lake Ontario.

For the years 1961 to 1963 the actual strength of Canadian pilots was greater than shown (p. 180) (i.e., 24 in 1961 and 21 in 1962 and 1963) due

to the number of Canadian pilots who held permanent licences for the Kingston District prior to the organization of District No. 1. According to the Memorandum of Arrangements, only 20 Canadian pilots could be on the active list at one time; when vacancies occurred, they were filled by the pilots in excess of the establishment before new U.S. pilots could be appointed.

DISTRICT No. 1
NUMBER OF PILOTS AUTHORIZED
(By Date of Change)

Date	Total Number of Pilots	District Pilots		Lake Ontario Pilots	
		American	Canadian	American	Canadian
1961 – May.....	32	12	20	nil	nil
1961 – August.....	32	12	20	nil	nil
1962 – July.....	36	12	20	2	2
1963 – March.....	39	12	20	4	3
1964 – June.....	40	12	20	4	4
1965 – January.....	42	12	20	5	5
1965 – July.....	44	12	20	5	7
1966 – May.....	50	14	20*22	7	7
1966 – June.....	50	14	20*22	7	7
1966 – July.....	50	14	20*22	7	7
1967.....	50	14	20*22	7	7
1968.....	46	14	19	6	7
1969.....	46	14	19	6	7
1970.....	46	13	19	7	7

*Under date of 29 July 1965, two Canadian positions allocated for St. Regis /Snell Lock Pilotage; on 10 May 1966, the two compensating U.S. positions were allocated to District Pilots.

DISTRICT No. 1
NUMBER OF PILOTS ON ROLLS
(Including Applicants Temporarily Registered)

(Dec. 31st)	Total Number of Pilots	District Pilots		Lake Ontario Pilots	
		American	Canadian	American	Canadian
1961.....	32	12	20		
1962.....	36	12	20	2	2
1963.....	38	12	20	3	3
1964.....	40	12	20	4	4
1965.....	42	12	20	5	5
1966.....	48	14	20	7	7
1967.....	49	14	20	8	7
1968.....	46	14	19	6	7
1969.....	46	14	19	6	7
1970.....	45	13	18	7	7

Following the protest of the District pilots against Lake Ontario assignments, lake pilots were appointed. Since 1967, District No. 1 pilots

have not been required to perform lake assignments: they are handled by lake pilots, and occasionally by District No. 2 pilots.

(b) *District No. 2*

The following two tables supplied by D.O.T. convey the same information for District No. 2 and the Lake Huron/Lake Michigan pilot group.

DISTRICT No. 2
NUMBER OF PILOTS AUTHORIZED
(By Date of Change)

Date	Total Number of Pilots	District Pilots		Lake Pilots	
		American	Canadian	American	Canadian
1961 - May.....	56	9	47		
1961 - August.....	60	15	45		
1962 - July.....	60	21	39		
1963 - March.....	60	26	34		
1964 - June.....	64	31	33		
1965 - January.....	95	35	43	10	7
1965 - July.....	95	35	43	10	7
1966 - May.....	100	35	43	15	7
1966 - June.....	100	35	43	15	7
1966 - July.....	100	35	43	15	7
1967.....	100	35	43	15	7
1968.....	87	34	41	7	5
1969.....	75	33	42	*	*
1970.....	74	32	42	*	*

*Positions allocated to District No. 3.

DISTRICT No. 2
NUMBER OF PILOTS ON ROLLS
(Including Applicants Temporarily Registered)

(Dec. 31st)	Total Number of Pilots	District Pilots		Lake Pilots	
		American	Canadian	American	Canadian
1961.....	59	15	44		
1962.....	62	24	38		
1963.....	63	29	34		
1964.....	73	36	37		
1965.....	85	35	40	5	5
1966.....	93	38	47	5	3
1967.....	94	41	45	4	4
1968.....	89	33	45	7	4
1969.....	74	32	42	*	*
1970.....	72	31	41	*	*

*Positions allocated to District No. 3.

The main problems that had to be faced in connection with the number of pilots in District No. 2 were:

- the increase in pilotage demand up to 1965;
- the loss of pilots' time in Welland Canal operations, especially when congested, and in the intermediate ports of their lengthy District, especially Toledo and Detroit, and their extensive commitments in undesignated waters;
- the decrease in the number of ships since 1966.

(c) *District No. 3*

The following tables provided by D.O.T. contain similar information for District No. 3. The lake pilots are those for Lake Huron and Lake Michigan who are now attached to District No. 3 rather than District No. 2 for administrative purposes. There is no separate lake pilot group for Lake Superior.

DISTRICT NO. 3
NUMBER OF PILOTS AUTHORIZED
(By Date of Change)

Date	Total Number of Pilots	District Pilots		Lake Pilots	
		American	Canadian	American	Canadian
1961 – May.....	16	13	3		
1961 – August.....	16	13	3		
1962 – July.....	16	13	3		
1963 – March.....	16	13	3		
1964 – June.....	16	13	3		
1965 – January.....	16	12	4		
1965 – July.....	16	12	4		
1966 – May.....	16	12	4		
1966 – June.....	16	12	4		
1966 – July.....	20	14	6		
1967.....	20	14	6		
1968.....	18	14	4		
1969.....	27	14	4	5	4
1970.....	28	16	4	4	4

DISTRICT No. 3
NUMBER OF PILOTS ON ROLLS
(Including Applicants Temporarily Registered)

(Dec. 31st)	Total Number of Pilots	District Pilots		Lake Pilots	
		American	Canadian	American	Canadian
1961.....	14	14			
1962.....	19	16	3		
1963.....	17	14	3		
1964.....	15	12	3		
1965.....	16	13	3		
1966.....	20	14	6		
1967.....	18	14	4		
1968.....	18	14	4		
1969.....	27	14	4	5	4
1970.....	26	15	4	3	4

(2) RECRUITING AND APPRENTICESHIP

The availability in the Great Lakes system of a large pool of qualified mariners experienced in navigating the confined waters of the designated areas and conversant with Seaway procedure and lockage operations has proved the ideal source for recruiting pilots. Since the candidates have proven qualifications of the highest standard, the training they require is limited to experience in handling ocean-going vessels. For a similar situation, compare the Pilotage District of Cornwall (Part IV, pp. 934-938).

Canadian Great Lakes legislation does not cover the training of pilot candidates (p. 16). The United States regulations provide that pilot candidates may be required to undergo the training programme adopted by the pool responsible for pilotage operations in the sector in which they wish to be registered (pp. 43, 46 and 47).

The Canadian pilots in Districts Nos. 1 and 2 have repeatedly requested that an apprenticeship system be organized officially.

In practice, an unofficial training system has developed. District pilots are recruited from lake pilots. Since applicants are already qualified mariners with experience in navigating the Great Lakes system, they are first registered as lake pilots, either for Lake Ontario or for Lake Huron/Lake Michigan, but are not given any guarantee that they will ever become District pilots.

While they serve as lake pilots, they gradually acquaint themselves with the peculiarities of ocean-going vessels on their various lake assignments and when handling them in the ports situated in undesignated waters. When a vacancy occurs in a District establishment, a candidate is normally chosen from the Lake Ontario pilots for District No. 1 and from the Lake Huron/Lake Michigan pilots for District No. 2 or District No. 3. The chosen candidate is required to accompany a registered pilot on a number of District assignments until it is considered that he has become sufficiently familiar with its features. His training is completed by actual pilotage assignments which he performs alone while holding a probationary registration certificate unlimited as to type or size of ship (Ex. 1541(p)).

The U.S. administration follows the same practice. The expressions "applicant pilots" or "applicants temporarily registered" used in the U.S.-Canada Statistical Report (vide Appendix A) Part I, Tables 2, 5(a) and 5(b), mean lake pilots (Ex. 1541(p)).

Great Lakes shipowners have complained that this system is siphoning off a great number of experienced Masters and mates from the commercial trade to become Cornwall District or Great Lakes pilots by offering them greater remuneration and better working conditions than the shipowners. The Great Lakes shipowners add that in this way the Canadian and United States Governments make them bear the cost of training pilots for the benefit of another category of vessels. In order to meet their own requirements for Masters and navigating officers, the scarcity of trained personnel obliges them to train men on the job and pay for qualification courses. The benefit of all this effort and expense is lost when the men they have qualified are taken away from them to become pilots (Ex. 1541(g)).

COMMENTS

The training system is realistic but it is considered that it should be defined in legislation in order to ensure a high standard of qualifications and prevent arbitrary decisions.

The Great Lakes shipowners' complaint is not well founded for it is in the public interest to attract the best available candidates to the pilotage service and to recruit from the ranks of experienced local mariners. The possibility of a shipowner losing the navigating officers he has trained is not exclusively related to pilotage because there is nothing to prevent such officers from leaving for employment with another owner who offers better remuneration or working conditions. The problem should not be as acute as before since the demand for candidates should have decreased now that the system is fully organized, the pilots are somewhat over strength and pilotage traffic is declining. Its importance will be further reduced if compulsory

pilotage requirements are not extended to cases where the services of a pilot are not really needed, e.g., in the open waters of the Lakes.

(3) PILOTS' ORGANIZATIONS

In their Great Lakes pilotage legislation Canada and the United States have a basically different concept of pilots' organizations. Neither Act provides for automatic association, corporate or otherwise, and neither makes it illegal for the pilots to form any number of voluntary associations if they so elect. However, the U.S. legislation assumes this will take place in sectors where there is a requirement to regulate the provision of services.

As seen earlier (pp. 38 and 45), under the United States legislation, the Government may not assume the management and direction of the service. This function may be undertaken only by a voluntary association of all or some of the pilots (complete membership is not required). In a given locality, there may be a number of separate associations but all the U.S. pilots there will be automatically subject to the operational and administrative control of the association chosen by the Great Lakes Pilotage Administrator to create and operate a pilots' pool. While membership in the association is voluntary, every pilot must belong to the pool. Since the pool is operated by the association, any pilot who is not a member of that association has no legal voice in its organization and operation except by making representations to the Administrator in the discharge of his surveillance duties and as the authority responsible for making the regulations under which the association operates the pool. If no voluntary association exists or if none is willing to operate a pool, the pilots become private contractors.

By contrast, the associations which the Canadian pilots may form are not recognized in the Canadian Act. Nevertheless, the fact that they have no official status does not prevent them from playing an important part.

The Commission shares neither of these extreme and opposite views in areas where pilotage is considered a public service, and has expressed its views in Part I, General Recommendations, particularly Nos. 14 and 25 (Part I, pp. 495 and 549). While it is considered that the pilots in a given locality should be compulsorily grouped in a statutory professional corporation, it is also believed that, because of the possibility of conflicting interests, such corporations must not be entrusted with the task of operating the service where pilotage is necessary in the public interest. This responsibility should be assigned to a disinterested public agency.

The situation with regard to Canadian and U.S. pilots' organizations has changed little since the time of the Commission's hearings. Information about the Canadian organizations has been brought up to date to the extent deemed necessary for the purposes of this Report. As far as

the U.S. associations are concerned, the information obtained at the hearings supplemented by official documents suffices to illustrate their rôle in the overall organization and permit an appraisal of the validity of the system.

(a) *District No. 1*

In District No. 1 there are two pilots' organizations: the St. Lawrence Seaway Pilots Association, now grouping all the United States registered pilots for District No. 1 and Lake Ontario, and the Corporation of the Upper St. Lawrence Pilots, which groups all the Canadian pilots registered for District No. 1, but not the Canadian Lake Ontario pilots. In addition, the Canadian District registered pilots, as licensed pilots for the Pilotage District of Kingston, are also represented by the usual Pilots' Committee (Part I, pp. 82 and ff.) which, under the District General By-law, is their official representative both as a group and as individuals. As in the other St. Lawrence River Districts, the Board of Directors of the Pilots' Corporation automatically forms the Pilots' Committee.

(i) *St. Lawrence Seaway Pilots Association, Inc.*

The St. Lawrence Seaway Pilots Association, Inc., is the voluntary U.S. pilots' association which had been authorized by the Administrator to form and operate the former U.S. Cape Vincent pilots' pool. When District No. 1 was created in 1961, the 12 United States pilots formed two associations. It was only in 1962 that one of these, the St. Lawrence Seaway Pilots Association, was authorized to form and operate the Cape Vincent pool, although it did not include all the U.S. registered pilots. It appears that since then the association obtained as members all the U.S. registered pilots, not only of District No. 1 but also of Lake Ontario.

Until the Cape Vincent U.S. pilots' pool was disbanded in 1969 (pp. 305-6) because dual administration was not considered conducive to the efficiency of operations and administration, the St. Lawrence Seaway Pilots Association despatched pilots for assignments originating at Cape Vincent or in the adjacent areas of District No. 1 and Lake Ontario under its jurisdiction, and attended to the ensuing administration, *inter alia*, the collection of pilotage fees, and made the necessary arrangements to provide pilot vessel service at Cape Vincent (p. 217 and ff.). Since 1969, this association has had no official status or official rôle in the organization of the service. Presumably, it continues to include the U.S. pilots of District No. 1 and Lake Ontario but as a voluntary professional association.

(ii) *Corporation of the Upper St. Lawrence Pilots (Ex. 848)*

The Corporation of the Upper St. Lawrence Pilots includes as members all the licensed pilots of the Kingston District—hence, all the Canadian registered pilots of Great Lakes District No. 1, but not the Canadian Lake Ontario registered pilots.

Prior to the partition of their District, the Canadian pilots of the St. Lawrence-Kingston-Ottawa District had formed in 1956 the first corporation of pilots ever incorporated under Part II of the Federal *Companies Act* under the name of "Corporation of the St. Lawrence-Kingston-Ottawa Pilots" (Part I, p. 87, Ex. 806). In 1961, following the division of the District, the Kingston pilots formed their own corporation under the name "Corporation of the Upper St. Lawrence Pilots" on the same model. On account of the transitory arrangements for allocating the pilots of the former District to either of the two new Districts and the possibility of transfer, it was provided that, if a pilot was transferred from the Kingston District to the Cornwall District, he would automatically become a member of the Cornwall Pilots' Corporation, which by then had changed its name to "Corporation of the St. Lawrence River and Seaway Pilots".

The purposes of the Corporation as set out in the letters patent are those stated in Part I, pp. 87-89. The Corporation's charter, by-laws and structure are, in substance, the same as those of the other pilots' corporations of the St. Lawrence Pilotage Districts and like them it purports to have full control over the pilots' earnings. Once a pilot is a member, he is supposed to be unable to withdraw from the Corporation of his own volition as long as he remains a licensed pilot, unless he is expelled by decision of the five-member Board of Directors. For further details regarding the nature and structure of this type of corporation, reference is made to Part IV, pp. 275 and ff.

One peculiarity it has inherited from the former Corporation is admission fees. Effective October 1, 1961, all new members were required to pay an entrance fee of \$1,500 in five equal yearly instalments into a special fund which, according to the By-law (By-law No. 2, secs. 13 to 17), can not be spent except as authorized by a resolution at a general meeting of the members. In fact, however, a special fund is not maintained but the revenues from this source are credited to the pool towards payment of general expenses. The philosophy behind this entrance fee is that the new members should be required to pay a contribution towards the cost of the organization from which they benefit; this organization has been paid for by the other members and those who still belong are thus reimbursed proportionately.

The Corporation is operated as if, in addition to being a professional organization, it was also a partnership for the purpose of pooling pilotage revenues, but this is incompatible with Part II of the Federal *Companies Act* under which the charter was granted. The comments on the legal situation in Part I, pp. 90 and ff., and Part IV, pp. 283 and ff., apply here.

Hence, the financial operations and procedure are the same as those of the Cornwall Pilots' Corporation and other similar corporations grouping pilots of the St. Lawrence Pilotage Districts. The pilotage earnings of all the pilots are dealt with as if they were the Corporation's own earnings out of

which it first finances its operations and meets group expenditures, then shares the remainder among the Corporation's members according to the pooling rules contained in the Corporation by-law.

The pooling procedure is the same as that adopted by the Montreal harbour pilots and the Cornwall District pilots (Part IV, pp. 803 and ff., and pp. 977 and ff.). Pooling is based on dues earned and shares unsettled at the end of the pooling period are paid to the pilots as outstanding earnings are collected.

In 1964, the financial year was made to coincide with the calendar year; until then, it had ended February 28. Hence, the financial statement for the year 1964 covers only ten months but this did not affect revenues since there is no pilotage in January and February. The only difference is that the expenditures are slightly lower than they would normally have been, since the limited administrative expenses for those two months were covered by the previous financial period.

The small amount of administration connected with pooling and Corporation operations is not extensive enough to justify a full-time staff. The Corporation shares the services of the part-time Secretary-Treasurer with the Montreal Harbour Pilots' Corporation and the Cornwall Pilots' Corporation. The three Corporations also employ the same chartered accountants. Furthermore, since the Corporation adopts the same pooling system as these other two Corporations, the result is the same book-keeping system and the same format for the annual financial statements concerning both financial and pooling operations.

The annual financial report (Ex. 861) consists of four statements:

- a balance sheet as of the last day of the financial year;
- a statement of receipts and disbursements for the financial year together with a supporting table giving details of the payment made to each Canadian pilot of his share from the current pooling and outstanding balances from previous distributions;
- a complete financial statement explaining the pooling operation with supporting documents;
- a statement of expenditures itemizing the cost of administering the service in District No. 1 by the Kingston Pilotage Authority and, prior to 1969, by the U.S. Pilots' Corporation in the operation of the Cape Vincent pool.

The first three statements are the same as those in the Cornwall Pilots' Corporation financial statement. The fourth, which was added in 1967, is merely informative since the financial operations it reflects are beyond the control of the Corporation. It serves, however, as a kind of accounting by the Corporation for its mandate to verify the handling of pilotage revenues

by the authority charged with the administration of the service in the District and to ensure that the expenditures it charged against the aggregate revenues before remitting to the Corporation the shares owing to its members were justified and legally incurred. Under the Great Lakes pilotage arrangements, the pilotage organization of each sector must be financially self-supporting and operational expenses must be shared equally among those who benefit from them. In District No. 1, these expenditures comprise the operating cost of the Cornwall and, prior to 1969, the Cape Vincent pilotage offices, with no part being assumed by either Government as is normally done by the Canadian Government in Pilotage Districts where the Minister is the Pilotage Authority.

The aggregate administrative costs, less the portion of the Cape Vincent operational expenses charged to the Lake Ontario pilots, are assumed by all the U.S. and Canadian District No. 1 pilots proportionate to their share of pilotage revenue.

The description of, and information given with regard to, these three statements in Part IV, pp. 699–702, apply here *mutatis mutandis*. The financial statement for 1968 (Ex. 861) is used to illustrate the process. The balance sheet as of December 31 showed the following assets and liabilities:

ASSETS			
Money on hand and in bank.....			\$93,806.23
Receivable accounts			
Kingston Pilotage Authority			
1966 season.....	451.54		
1968 season.....	43,918.67		
		44,370.21	
St. Lawrence Seaway pilots			
1966 season.....		325.40	
			44,695.61
Total assets.....			\$138,501.84
LIABILITIES			
Accounts payable			
Secretary-Treasurer.....		849.05	
Legal fees.....		4,872.40	
Others.....		185.45	
			5,906.90
Non-pooled money			
1968 detentions.....		2,933.50	
1968-69 winter earnings		1,638.50	
1968 reimbursements.....		42.24	
			4,614.24
Pooled money			
1966.....		982.75	
1967.....		188.71	
1968.....		126,809.24	
			127,980.70
Total liabilities.....			\$138,501.84

Study of Pilotage in Great Lakes System

Since the second document is a statement of receipts and disbursements for the financial year, it reflects cash transactions only. This statement for 1968 shows:

RECEIPTS

Balance on hand and in bank, January 1, 1968.....		\$ 66,958.24
<i>Kingston Pilotage Authority</i>		
1966 season.....	142.64	
1967 season.....	12,797.65	
1968 season.....	318,420.00	
		331,360.29
<i>St. Lawrence Seaway pilots</i>		
1966 season.....	103.24	
1967 season.....	19,738.98	
		19,842.22
Winter earnings (1967-68).....	2,009.71	
Reimbursement of expenses (Guild meeting).....	190.00	
		353,402.22
Total receipts.....		420,360.46

DISBURSEMENTS

<i>Administrative expenses</i>		
Secretary-Treasurer.....	3,500.00	
Administrative costs.....	3,869.61	
Canadian pilots' pilot vessel service		
Wolfe Island (Dogan).....	5,616.00	
<i>Group expenses</i>		
Federation fees.....	3,325.00	
Group insurance.....	16,124.28	
1967 outstanding payable accounts.....	3,145.53	
<i>Payments to the pilots</i>		
Non-pooled items		
1964 detentions and reim-		
bursable expenses.....	50.00	
1966 detentions and reim-		
bursable expenses.....	40.00	
1967 detentions and reim-		
bursable expenses.....	3,385.00	
1968 detentions and reim-		
bursable expenses.....	4,773.40	
1967 winter earnings.....	2,025.69	
		10,274.09
Pooled earnings		
1964.....	453.17	
1967.....	92,446.55	
1968.....	187,800.00	
		280,699.72
Total disbursements.....		\$326,554.23
Cash on hand and in bank December 31, 1968.....		\$ 93,806.23

The supporting tables give details of payments to each pilot or on his behalf during the year covering what was owed him for the current pooling period and was outstanding from previous pooling periods.

The third document, the accounting statement of pooling operations, shows the share of the Canadian pilots of net pilotage revenues earned during the year (not collected) and other earnings accruing to the pool, if any, e.g., the amount that may be paid to the Corporation by the Federation for free turns and the amounts paid by newly licensed pilots as initiation fees. It also shows the computation of the sharing turn after deducting the expenses of District Canadian pilots and the Corporation, as well as earnings that do not form part of the pool. The calculation of the net pooling income for 1968 was as follows:

<i>Earnings</i>	
1968 earnings of Canadian pilots.....	\$403,495.08
Initiation fees.....	300.00
Total.....	\$403,795.08
<i>Less</i>	
Administrative expenses of Kingston Pilotage Authority and Cape Vincent pool	
Share of Canadian District pilots.....	36,422.40
Kingston Pilotage Authority's administrative expenses chargeable only to Canadian District pilots	
Taxi.....	6,430.75
Dougan pilot vessel service.....	5,600.00
Corporation's administrative expenses.....	13,276.51
Non-pooled items	
Detentions.....	7,706.90
	69,436.56
Net pooling income.....	334,358.52
Total.....	\$403,795.08

The net value of the turn (\$217.40) was arrived at by dividing the net pooling amount by the number (1538) of sharing turns. A supporting table shows how much of the net pooling income was paid to, or on behalf of, the pilots and how much was outstanding on December 31. A breakdown per pilot is given in addition to the aggregate amount. For 1968, the aggregate figures were shown as follows:

Regular Pooling Net.....	\$334,358.52
<i>Payments made</i>	
On behalf of the pilots	
Insurance.....	16,124.28
Federation fees.....	3,325.00
Initiation fees.....	300.00
	19,749.28
To pilots.....	187,800.00
Balance of net pooling outstanding as payable accounts to the pilots.....	126,809.24
Total.....	\$334,358.52

The fourth statement establishes the share of the Canadian District pilots in the cost of operating the Cornwall and Cape Vincent pilotage offices which are common to the United States and Canadian District pilots. The statement for 1968 is as follows:

"EXPENDITURES	
Kingston Pilotage Authority and Cape Vincent Station	
Employees Salaries and Benefits.....	\$30,669.58
Office Space and Equipment Rental.....	1,858.62
Repairs Office Equipment.....	43.30
District Administrative Travel.....	98.64
Telephone.....	4,040.00
Teletype.....	2,161.08
Postage and Express.....	228.41
Stationery and Supplies.....	546.09
Cape Vincent Station Cost.....	5,920.00
Cape Vincent Pilot Boat.....	37,871.40
Stationery (Cape Vincent).....	171.12
Rental—Building and Equipment.....	57.00
Loss on U.S. Exchange.....	4.50
	<hr/> 83,669.74
Less: Refund from Lake Pilots.....	18,434.30
Total Cost.....	<hr/> 65,235.44
Portion Applied to Canadian Pilots [according to the Memorandum of Arrangements]: 55.86%.....	<hr/> <hr/> 36,422.40

As was done in Part IV for Pilots' Corporations in the other St. Lawrence Districts for comparative purposes and to establish the real cost of administration, the following table computed on the basis of liabilities (not expenditures) shows, for the years 1962–1969, the total pool liabilities, i.e., which have to be paid out of the common fund, segregated into group liabilities, i.e., group insurance premiums, St. Lawrence Pilots' Federation fees, Merchant Service Guild dues and Corporation administrative and operating liabilities. In order to establish the real administrative cost, the aggregate value of the free turns granted to Directors attending to Corporation business

has been computed and added to the monetary liabilities to form the actual costs of administration which appear in the last column. These liabilities and costs are only those that result from the Corporation's activities or from the decision of the pilots as a group and which do not concern the Pilotage Authority. They are met out of the aggregate share of the Canadian pilots of the net revenues of District No. 1 after the District operating costs of the two administrative authorities, prior to 1969 and, since then, of the single administrative authority have been deducted, and also the special costs which are chargeable only to the Canadian pilots, i.e., taxi transportation between Cornwall and Snell lock and other similar transportation costs including the Dougan pilot vessel service at Wolfe Island. Vide for comparative purposes, the similar table showing the pool liabilities of the Cornwall pilots, Part IV, p. 945.

DISTRICT NO. 1 CANADIAN PILOTS

Pool Liabilities and Administrative Costs Prior to Distribution to Pilots

Year	Pool Liabilities		Administrative Costs		
	Total Prior to Distribution	Other than Admini- strative Liabilities	Liabilities	Value of Free Turns to Directors	Total
1962.....	\$27,098.09	\$13,836.24	\$13,261.85	\$ n/av.	\$ —
1963.....	26,861.85	18,292.80	8,569.05*	5,138.27	13,707.32
1964.....	27,229.81	17,112.86	10,116.95	n/av.	—
1965.....	29,053.62	19,417.28	9,636.34	2,048.15	11,684.49
1966.....	37,485.72	21,353.54	16,132.18	1,658.10	17,790.28
1967.....	34,095.70	20,147.78	13,947.92	174.05	14,121.97
1968.....	34,735.50	19,449.28	15,286.22	217.40	15,503.62
1969.....	30,464.34	20,400.24	10,064.10	449.84	10,513.94

*Excluding turns (\$551.68) paid to P. Pelletier.

SOURCE: Ex. 861.

The following table gives the details of the administrative liabilities and group expenses (pool liabilities other than administrative) for the first full year of operation of the Corporation and for 1969. The year 1966 was added since it was the one in which administrative liabilities were the highest.

Study of Pilotage in Great Lakes System

	1962	1966	1969
<i>Administrative Liabilities</i>			
Sec.-Treas.'s remuneration.....	\$ 2,200.00	\$ 4,282.57	\$ 6,388.15
Legal fees.....	5,980.51	8,449.75	955.95
Telephone and telegraph.....	364.13	274.98	127.84
Flowers and Christmas gifts.....	239.58	217.00	179.22
Convention expenses.....	366.05	450.35	248.66
Postage.....	504.50	236.40	95.00
Stationery and printing.....	168.51		155.58
Meeting expenses.....	—	93.03	18.35
Bank charges and sundries.....	128.53	—	153.05
Directors' expenses and allowances.....	2,722.54	1,017.10	1,114.30
Audit.....	587.50	1,111.00	628.00
	<u>\$13,261.85</u>	<u>\$16,132.18</u>	<u>\$10,064.10</u>
<i>Pool Liabilities Other than Administrative</i>			
Insurance premiums.....	\$ 9,636.24	\$16,273.54	\$16,125.24
Federation fees and Guild dues.....	4,200.00	5,080.00	4,275.00
	<u>\$13,836.24</u>	<u>\$21,353.54</u>	<u>\$20,400.24</u>
Total liabilities from the pool.....	<u>\$27,098.09</u>	<u>\$37,485.72</u>	<u>\$30,464.34</u>

The number of pilots was not a contributing factor in the increase in group liabilities since those who shared in the pool decreased from 21 in 1962 to 19 in 1969. Affiliation fees have remained much the same: they were highest in 1963 when each pilot was assessed \$150 for his share in the expenses incurred by the Federation in connection with this Commission. These fees were somewhat reduced when compulsory membership in the Guild was discontinued in 1967. The increase in group expenses in the item "Group Insurance" is due to the higher coverage the pilots decided to take out in 1965.

Recurrent administrative liabilities have remained stable. The Secretary-Treasurer's remuneration was increased in 1966 from 1 per cent to 1½ per cent of the pilotage earnings received. The two items that have fluctuated most are Directors' allowances and expenses and legal fees. These items are unpredictable—they vary from year to year depending upon the number of problems and disputes affecting the pilots as a group which the Board of Directors and the Corporation's legal advisers have to deal with. If these occurred during the navigation season, they are also reflected in non-financial costs, i.e., free turns. Administrative costs, contrasting with the situation in similar Corporations, have remained substantially the same and reached their lowest level in 1969.

The Corporation Directors, in addition to reimbursement of their expenses, are remunerated indirectly through the allocation of one-half turn per day's meeting during the navigation season and a \$15 per day allowance for meetings held during the winter season. They have to submit a detailed expense account covering their travelling and living out expenses.

At the time of the Commission's hearings, the Board of Directors of the Corporation met at least once a month. In order to keep the members informed about their activities, the minutes of Board meetings were read at the annual general meeting.

The Corporation is a group member of the Federation of the St. Lawrence Pilots (Ex. 853) and sends three delegates to its meetings (Ex. 855). The dues payable to the Federation on this account are the same for all group members on a per capita basis for both regular dues and special assessments. The same method of assessing dues for the Canadian Merchant Guild applied until compulsory membership was discontinued in 1966.

The audits made by the Corporation auditors cover only Corporation money and do not include the verification of financial documents filed either by the Kingston Pilotage Authority or by the U.S. pilots' pool.

For a study of the pooling procedure, vide pp. 316 and ff.

COMMENTS

As already pointed out (vide Part IV, p. 289), there is a basic error in the way the financial reports are presented in that the pilots' earnings are shown as assets and revenues of the Corporation and the operation of the pool as part of the Corporation's own financial operations.

If the Corporation is to continue to operate and manage the pooling of the pilots' earnings, in order to regularize the financial operations of the Corporation, it would be necessary to implement the Commission's General Recommendation 25 and the procedure suggested therein (Part I, pp. 549 and ff.). Until this is done, it is considered that the financial operations of the Corporation should be segregated from those of the pool. The first step in that direction would be to provide the Corporation with funds of its own through the imposition of Corporation dues. The financial report should also reflect the true legal situation and deal separately with the Corporation and the Trust Fund it administers.

(b) Lake Ontario Sector

As indicated in the Joint (Interpool) Working Rules and Dispatching Procedures for Lake Ontario Assignments, the Canadian and U.S. registered pilots for Lake Ontario have formed a partnership for the purpose of pooling their pilotage earnings, the sharing being based on availability for duty (Ex. 1541(u)). The pooling used to be administered on behalf of the Lake Ontario pilots by the Cape Vincent pool; this function is now attended to by the Canadian administrative authority of District No. 1.

The U.S. Lake Ontario pilots are members of the St. Lawrence Seaway Pilots Association. Active membership in the Corporation of the Upper St. Lawrence Pilots was refused the Canadian Lake Ontario pilots, probably because this Corporation operates as a pooling partnership for the Canadian pilots of District No. 1, which precludes the admission of members who can not be part of the pooling procedure. However, the Canadian Lake Ontario pilots are treated unofficially as honorary members; they are invited to attend the Corporation's general meetings but they may not vote (Ex. 848). Two Canadian Lake Ontario pilots are also members of the Corporation of Professional Great Lakes Pilots (Ex. 1541(q)).

(c) *District No. 2, Lakes Huron/Michigan Sector and District No. 3.*

The Canadian and U.S. pilots in the sectors west of Lake Ontario have formed three associations:

- The "Corporation of Professional Great Lakes Pilots" consisting of all the remaining Canadian pilots.
- The "Lakes Pilots Association, Inc.", the U.S. pilots of District No. 2 and the Lake Huron/Lake Michigan sector.
- The "Lake Superior Pilots Association, Inc.", which covers U.S. District No. 3.

(i) *Corporation of Professional Great Lakes Pilots (Exs. 1049 and 1541(q)).*

The Corporation of Professional Great Lakes Pilots is the Canadian professional pilots' organization which now groups with one exception all the Canadian pilots who are prevailing rate employees of the Government, i.e., the Canadian pilots registered for District No. 2, District No. 3 and the Lake Huron/Lake Michigan sector. As noted earlier, two Canadian Lake Ontario pilots have joined the membership.

It is strictly a professional organization. There is no need for any pooling arrangements since the prevailing rate pilots receive a fixed salary. The Corporation finances its operations through corporate dues which are currently fixed at \$40 per month or \$480 per year.

In 1956, the Canadian Sailing Masters who then provided the pilotage service on the Great Lakes had grouped themselves into an association named "The Great Lakes Pilots Association of Canada". This association lapsed after its abortive attempt to block the reorganization of the pilotage service on the Great Lakes (pp. 54 and ff.).

In 1961, the majority of the Canadian registered pilots in District No. 2 (Government employees) formed the Corporation of Professional Great Lakes Pilots. The letters patent were issued on December 5, 1961, under Part II of the Companies Act. The charter is similar to the charters of the

various pilots' corporations of the St. Lawrence River Districts and the purposes set out in the letters patent are almost a verbatim reproduction of those found in the other charters (for text, vide Part I, pp. 87-89) even including the clause concerning the pooling of the pilots' earnings, which is incompatible with the employees' status of the Corporation members. The Corporation By-laws (except for Part II dealing with the pooling procedure, which has been omitted) have also been similarly inspired, so much so that the terms "licence of pilot" and "pilot's licence" were retained despite the fact that all the Corporation members hold a registration certificate and not a pilot's licence. They contain the usual provisions which purport to render membership compulsory once a pilot has been admitted as a member and as long as he retains his right to exercise his profession, unless expelled. The analysis of the Quebec Pilots' Corporation By-laws, Part I, pp. 84-85, and the Commission's comments (Part IV, pp. 263 and ff.) apply here *mutatis mutandis*.

The activities of the Corporation are limited to those of a professional association, i.e., promoting the professional interests of its members and advising on the organization of the service within the territorial competency of its members. At the beginning, the Corporation, which did not then represent the whole group of pilots, experienced difficulty obtaining recognition by the Department of Transport of its representative capacity (Exs. 1052 and 1053). It is not yet recognized as a bargaining unit for labour relations purposes (Ex. 1054) but is now recognized as a *bona fide* professional group and regularly makes representations to the Department of Transport in the form of briefs and memoranda (Ex. 1055). The Corporation's Board of Directors regularly meets with its U.S. counterpart to discuss problems of mutual interest but, since it has no official rôle to play in the administration of the service, its decisions have no binding effect.

Since January 1966, the Corporation has been a group member of the Federation of the St. Lawrence Pilots but it is not affiliated with the Canadian Merchant Service Guild, in which membership is on an individual and voluntary basis.

(ii) *Lakes Pilots Association, Inc.*

The Lakes Pilots Association, Inc., is the voluntary association of the U.S. pilots of District No. 2 which was authorized to form and operate their pool, i.e., the Port Huron pilotage office. Up to the 1969 change in the organization of the District, it was one of the two administrative authorities, both with separate but co-ordinated jurisdiction. It has now exclusive administrative jurisdiction over the western sector of the District.

(iii) *Lake Superior Pilots Association, Inc.*

The Lake Superior Pilots Association, Inc., groups all the United States pilots registered for District No. 3. It is the sole administrative authority for

District No. 3 and Lake Superior, with joint jurisdiction with the District No. 2 Lakes Pilots Association, Inc., over Lakes Huron and Michigan. Even before the Great Lakes pilotage legislation came into force, the organization of the pilotage service in that area had always been left to the initiative of the U.S. pilots. This state of affairs was given official recognition when organizational arrangements were devised. The Memorandum of Arrangements of 1961 made the administration of the provision of services in District No. 3 and on Lake Superior an exclusive U.S. responsibility, and the U.S. Great Lakes Pilotage Administrator gave official recognition to this Association for the operation of the U.S. pilots' pool which they had created long before and had operated up to then.

The Lake Superior Pilots Association, Inc., was formed on July 8, 1959, in accordance with the provisions of the Minnesota Business Corporation Act, mainly to provide pilotage service in the third restricted pilotage area that the Shipping Federation of Canada was then organizing, i.e., St. Marys River and Sault Ste. Marie locks. When District No. 3 was organized and pilotage requirements were extended to the open waters of Lake Superior and the ports situated thereon, the Association took over the port pilotage services that had been established privately at Duluth and Thunder Bay.

One purpose of the Corporation, as defined in its charter, is "to render pilots and piloting service to domestic and foreign vessels traveling the Great Lakes and the St. Lawrence Waterway" (Ex. 1377).

After a great deal of study, the pilots chose to adopt the corporate form. Their decision was based on legal advice as to the joint liability of each pilot for the negligence of one of their members if they formed a partnership. The corporate structure is such that persons in management positions who are not pilots may become shareholders and members. There are two classes of stock:

- Class A, which is voting stock and limited to one share per person;
- Class B, or non-voting shares which may be held in any number.

Stock ownership is restricted to registered pilots and individuals actually employed by the Corporation, with the further requirement that at least three-fourths of all voting shares must be held by registered pilots. In October 1964, there were no non-pilot stockholders, except three retired pilots whose stock had not yet been purchased.

When a pilot leaves the Corporation, his stock is redeemable at the value determined by the stockholders themselves at the time.

However, in so far as the operation of the pool is concerned, the Association operates as a non-profit organization and any funds belonging to the pool which remain at the end of the operating season are distributed to the pilots or allocated to their retirement fund. The Corporation has set up a profit-sharing retirement fund for the benefit of its members.

The Corporation carries a liability insurance policy which also covers liability for negligence by each member of the Corporation up to \$500,000, with \$500 deductible for each accident.

The affairs of the Corporation are managed by a nine-member Board of Directors elected at the annual meeting of the stockholders for a term of one year. They need not be stockholders. At the time of the Commission's hearings, however, there were only five Directors (Ex. 1377). The day-to-day Corporation business is handled by a full-time business manager whose duties cover all administration, despatching, book-keeping, servicing and the preparation of reports. He is assisted by a full-time despatcher under his orders in Duluth and two other despatchers on a contractual and part-time basis at Detour and Thunder Bay.

The Corporation has three committees: an Examining Committee, composed of five Directors, whose primary function is to screen and process new applicants for pilots' registration and which also deals with disciplinary matters in cases involving United States pilots; a Navigation Committee, composed of three members, which deals with recommendations about aids to navigation; an Auditing Committee, appointed by the President, which audits the Corporation's books.

(4) STATUS OF PILOTS

Preamble

Despite appearances, the status of the various Great Lakes registered pilots is remarkably similar: none are self-employed, independent private entrepreneurs, all are employees of an administrative authority and in each sector they all operate under the same working rules and conditions. The only differences are the legal nature of their employment, the identity of their employer and their system of remuneration.

U.S. Great Lakes pilotage legislation makes the U.S. pilots self-employed private contractors and avoids direct provision for employee status, but it is drafted in such a way that they have no alternative but to become employees wherever the U.S. and Canadian authorities have decided that the service should be controlled and directed administratively (regarding the lack of choice to remain free lance pilots where "pilots' pools" have been created, vide p. 45). In fact, one of the basic principles of the organization contemplated when the Great Lakes pilotage legislations were first enacted was that the provision of services should be fully controlled administratively. The first Memorandum of Arrangements contained detailed measures to this effect and provided for the establishment of a number of pilotage offices throughout the Great Lakes system whose administrative jurisdiction covered every sector

and left no locality where a pilot could act independently. In the subsequent versions of the Memorandum, details were deleted but the principle remained.

The fact that the identity of the employer may be complex and multi-level does not alter the basic situation but may complicate and hamper the effective exercise of authority.

In Part I of the Report, p. 76, a distinction was made between the true status of employee which results from an explicit contract of employment, and the status of *de facto* employee resulting from the subordinate position in which a pilot is placed, normally by applicable legislation, thus preventing him from acting as a free, self-employed entrepreneur.

All the U.S. Great Lakes registered pilots have the same status of *de facto* employees. Their immediate employer is the administrative authority of the pilot station (or pilots' pool) where the pilots have to report for duty in accordance with the applicable working and despatching rules. Ideally, there should be only one administrative authority per group of pilots, but three factors alter the situation: the necessity for continuity of service, the agreement to have joint U.S. and Canadian participation in all sectors and the Sailing Master concept. As a result, when the pilots are assigned they come under the jurisdiction of a number of administrative authorities who temporarily exercise full jurisdiction over them in the performance of their duties. These local authorities not only issue assignment orders but also handle all the related administrative work, i.e., collecting pilotage fees and paying each pilot directly, or his nominee on his behalf, the fees so collected less his prorated share of the pilot station's operating expenses. Each group of U.S. pilots has made arrangements to pool their earnings and the partnership to which they belong is their nominee for this purpose.

The policy is now to appoint a single administrative authority for a given group of pilots. District No. 1 and District No. 3, as well as each of the two sectors of District No. 2, now have their own authority and, as a rule (except for District No. 3), District pilots do not perform assignments outside their District or sector. The previous system of dual authority now applies only to the lake pilots (and to a lesser extent to the Welland Canal pilots for assignments across Lake Erie), a feature that will have to be retained as long as pilotage remains compulsory in the open waters of the Lake.

The situation is the same for the Canadian pilots registered for District No. 1 and Lake Ontario and, for operational purposes, for the other Canadian registered pilots, i.e., for Districts Nos. 2 and 3 and for Lake Huron/Lake Michigan. The status of these pilots, however, differs in that they are true employees, their employer being the Government of Canada through the Department of Transport which pays them an established salary. The immediate employer of these Government employees remains the local administrative

authority, whether Canadian or U.S., and the only difference in administrative functions is that their net earnings belong to their employer.

The fact that under the pilots' pool system the local U.S. administrative authority must be a voluntary pilots' association gives some of the U.S. pilots direct participation in the operational functions of the service. This does not apply, however, to all U.S. pilots, since a number of them come under the jurisdiction of Canadian local authorities and they are not all members of the associations operating the U.S. pools. For the Commission's views on the pilots operating the service themselves, vide Part I, Gen. Rec. 14.

The discrepancy between the methods of remunerating Canadian and U.S. pilots has been the main source of difficulty when they work together, particularly in District No. 2 up to 1969, because of conflicting incentives. Since the earnings of the U.S. pilots are based on shared revenue, they have a direct interest in increasing rates and limiting their number as much as possible. They have proved generally opposed to long rest periods, holidays and vacations which reduce their individual working time and earning potential. On the other hand, the Canadian pilots receive a fixed salary and their main concern is to improve their working conditions. Hence, they demanded shorter hours, which necessitated the establishment of intermediate changeover points, adequate mandatory rest periods between assignments, regular leave and holidays, all of which resulted in an increase in their number. There are also conflicting views on how to deal with absence without leave. The U.S. pilots' philosophy is that the only way a pilot can be penalized for missing his turn is to make him lose his position on the assignment list by placing him at the bottom when he again becomes available, thereby extending the period during which he will not earn any fees. On the other hand, this procedure only improves the working conditions of a Canadian pilot on salary by affording him a rest period and the Canadian authorities feel that a pilot should receive no pay during his absence (with a minimum deduction of one day's pay) and that his name should be placed at the top of the roster when he returns to duty. This conflict of interests has been resolved in District No. 2 because Canadian and U.S. pilots no longer share the same territorial jurisdiction.

(a) *Prevailing Rate Employees*

While the Commission has favoured the status of public employees for pilots where the service is necessary in the public interest (Part I, Gen. Rec. 24, p. 545), it is not satisfied that the prevailing rate system is suitable for them. A study of the situation, together with the Commission's comments and recommendations, will be found in Part III, pp. 206–213 and pp. 292–295. It should be noted, however, that the situation has changed basically, in practice if not in law, since the Commission's hearings. *Ad hoc* arrangements have been developed to meet the special requirements of the pilotage profession. Constant availability is allowed for by basing the work week on avail-

ability for duty, irrespective of the hours actually spent on assignments, and irregular demand by providing additional remuneration for extra time over the basic 50 hours worked in periods of peak demand. The system has been improved with experience, e.g., various methods of recompensing overtime were tried but remained unsatisfactory until the basic principle of equal remuneration for equal availability was applied by pooling overtime pay. It appears that the Great Lakes pilots who are prevailing rate employees are now satisfied with this *ad hoc* system; the next step is to give it legal effect by embodying it in the law, preferably in the contemplated Pilotage Act.

The employment of pilots under the prevailing rate system has been another innovation of the Canadian Great Lakes pilotage administration. To evaluate its effectiveness, it is worth while to review the circumstances prevailing when the decision was taken and experience since. Like all other special features of the Great Lakes pilotage organization, the system has changed progressively, at least in practice.

When the Department of Transport decided to make the Canadian pilots in the Great Lakes system actual employees, this was not new because the Sarnia/Port Weller pilots already had this status in 1959 when the Department took over from the Shipping Federation of Canada responsibility for pilotage in that sector (p. 60). No problems were created for the Shipping Federation because the terms of employment were subject to private contractual arrangements which were drawn up to meet local requirements, but the Department of Transport encountered a serious legal problem since they had to fit the employment of the pilots into the existing legislation, none of which had been specifically devised to deal with such a situation. They could be employed by the Government under either the Civil Service Act through the Civil Service Commission, or the Financial Administration Act, sec. 7, which authorizes the Treasury Board to make regulations to cover certain exceptional cases. The Civil Service Act obviously did not apply and the solution was either to draft *ad hoc* regulations under the Financial Administration Act or fit the pilots into existing regulations, i.e., the *Ships' Officers and Crews Regulations* or the *Prevailing Rate Employees General Regulations*. Although the pilots have much in common with other mariners, their working conditions are quite different and the *ad hoc* regulations drawn up for ships' officers and crews could not apply. The obvious solution was to enact special regulations to meet the requirements of the pilotage service but this was not done, probably because in 1959 the final arrangements for Great Lakes pilotage legislation and organization had not yet been concluded. The general provisions of the Prevailing Rate Employees General Regulations were used. These regulations had not been drafted to cover such a situation and their application to the pilots was bound to cause misunderstanding, dissatisfaction and serious problems unless they were replaced by adequate legislation as soon as final agreement was reached on Great Lakes pilotage matters.

On February 19, 1959, the Treasury Board, acting under the authority of subsec. 7(c) of the Financial Administration Act, directed that, effective April 1, 1959, the remuneration of ships' pilots in the Port Weller/Sarnia area would be \$950 per month with a work week consisting of 40 working hours, and made the Prevailing Rate Employees General Regulations applicable to them, except for a few sections (T.B. 544540). On March 20, 1959, T.B. 546155 approved the same conditions of employment for the Kingston District pilots to whom a proposal to become Crown employees was being made in the meantime. On March 26, 1959, T.B. 545627 amended the establishment of positions for Marine Services of the Department of Transport by adding the following seasonal positions: 1 Master Pilot, 45 Ship Pilots and 4 Transport Operating Clerks 1. A decision dated May 26, 1959 (T.B. 546155-2 and T.B. 544540-2) with retroactive effect to April 1, again altered the conditions of employment by specifying that the monthly remuneration was all inclusive in that there would be no additional payment for overtime. T.B. 546155-3 and T.B. 544540-3 dated January 28, 1960, changed the work week from 40 to 48 hours effective April 1, 1960. These orders were replaced, effective April 1, 1960, by a new order (T.B. 560527 dated February 25, 1960) to the same effect, except that it no longer applied to the Kingston pilots who had rejected the offer. It increased the monthly salary to \$1,200 but the provision covering the work week was omitted. In succeeding years, the monthly remuneration was gradually raised: \$1,340 effective April 1, 1961 (T.B. 577620 dated March 9, 1961), \$1,380 effective April 1, 1962 (T.B. 597200 dated June 26, 1962) and \$1,425 effective April 1, 1964 (T.B. 625002 dated May 14, 1964) (Ex. 1362).

This was the situation when the Commission held its hearings on the Great Lakes. The District No. 2 pilots expressed their acute discontent with the system and advocated the abolition of direct employment in favour of the status of *de facto* employees enjoyed by the Kingston pilots and their U.S. colleagues in District No. 2. They complained that they were not consulted before their remuneration and working conditions were established by Treasury Board and were particularly concerned because they always received much less than the U.S. pilots who were paid on a "share-the-revenue" basis.

The Commission called as witnesses the officers of the Department of Transport and the Department of Labour who were responsible for applying the Prevailing Rate Regulations to the pilots. Their testimony showed a confused and unsatisfactory state of affairs. The general regulations, which had been devised mainly for casual labourers, proved to be inadequate for, and irreconcilable with, a service staffed by experts who can not readily be replaced and whose constant availability day and night throughout the navi-

gation season is a fundamental requirement which precludes regular, predetermined working hours. The application of the Prevailing Rate Regulations despite these incompatible factors was bound to confuse the procedure and give rise to arbitrary decisions.

The Director of the Labour Standards Branch of the Department of Labour tried to justify the application of the Prevailing Rate Regulations to the pilotage service by referring the Commission to one sub-paragraph of the definition of the term "employee" in the said regulations, i.e., "a person . . . whose remuneration is based on rates of pay prevailing in the appropriate area in Canada for work comparable to the class of work he does." However, he left the Commission unconvinced since this was an incomplete quotation; there are two other prerequisites, the second of which was not met as far as the pilots are concerned, i.e., ". . . whose duties are not professional, semi-professional, managerial or clerical in character . . ." (subsec. 2.(h) (ii)).

The other key provision is the procedure for establishing rates of pay. Subsec. 5.(1) provides that "the rate and conditions of pay" are to be authorized by the Treasury Board on the basis of a recommendation by the Department of Labour. The Department of Labour official took great pains to explain that his Department confined its recommendation to the Treasury Board to the rate of pay. Not only did it fail to define the nature and extent of the services to which the proposed rate applied, but did not even take these factors into consideration, although their recommendation was supposed to be appropriate remuneration for the services actually rendered by the pilots.

According to the Regulations, the rate of pay is to be based "on rates of pay prevailing in the appropriate area in Canada for work comparable to the class of work he does." The Dept. of Labour took as its point of comparison the Kingston District pilots on the false assumption that their services were comparable to those rendered by District No. 2 pilots. It also rejected as a basis of comparison the earnings of the U.S. registered pilots in District No. 2 who shared the same workload with the Canadian District No. 2 pilots and under the same working conditions. Its reasoning was these pilots did not operate in Canada but it is a fact that District No. 2 U.S. pilots were operating in the same area of Canadian and U.S. waters as their Canadian colleagues, and that the work performed by the pilots of both countries was not only comparable but was identical.

The revelation at the Commission's hearings of the true situation had effective results: a more rational approach was adopted and the system has been greatly improved. The pilots are now kept informed and consulted and the procedure for establishing rates of pay has been basically modified. Pilots are allowed to make proper representations and when a comparison is made

with other groups of pilots all factors are taken into consideration. The proposal to the Treasury Board dated October 15, 1965, from the Department of Transport for establishing rates of pay effective April 1, 1965, contained a detailed analysis of the conditions of employment of District No. 2 pilots compared with the pilots in the Cornwall and Kingston Districts. This comparison showed that the working conditions of the pilots in District No. 2 were not similar to those in the Kingston District and that their individual workload was much heavier. During 1965, the District No. 2 pilots averaged 88.4 hours monthly piloting, detention and travelling time as compared to 33.7 hours for the Kingston District pilots. Mention was made in the proposal that representations had been received from the staff organization of District No. 2 Canadian pilots, the Corporation of Professional Great Lakes Pilots. On October 25, 1965, T.B. 646877 established, retroactive to April 1, 1965, a new scale of rates, i.e., \$1,080 per month basic with individual compensation at time and a half for overtime beyond the basic work week of 40 hours piloting in designated and undesignated waters. Detention on board in harbour was to count for one hour's pay for six hours of detention time. Payment during the season was to be at the rate for a 50-hour week average. Overtime was to be compensated at the end of the season in cash or leave at the option of the employee.

It was soon realized that the new system created other problems: on one hand, it reduced the pilots' base pay for superannuation purposes and, on the other, seriously complicated accounting. The Pilots' Corporation made representations that the additional compensation should be paid on the basis of availability and not the amount of individual overtime, thus retaining an incentive to spread the workload as evenly as possible. It was also realized that the new method of computing overtime would be unduly complex and might be misinterpreted and misunderstood, particularly with respect to detentions out of harbour. After discussions with the pilots, a solution was found. T.B. 652402 dated March 17, 1966, retroactive to April 1, 1965, re-established the monthly rate at \$1,485. The basic work week was established at 50 hours using the eight-month season as the shift cycle and a flat amount of \$200 per month for time spent on assignments in excess of the normal work week was granted, "such payment to be made on the basis of availability days per month for each pilot."

This new method proved to be an oversimplification which failed to provide additional remuneration commensurate with actual overtime. After one year's trial, the method of remunerating overtime was again modified and further improvements were made to the working conditions. T.B. 659765 dated September 6, 1966, with effect from April 1, 1966, increased the rate of pay to \$1,675 per month. One day of rest per week was allowed with compensation at the value of one day of pay when the requirements of the

service did not permit the pilot to take it. The \$200 per month compensation for overwork was replaced by a variable seasonal allowance based on the "group average excess workload" calculated in accordance with a complex formula detailed in the order. Effective April 1, 1967 (T.B. 674891 dated November 24, 1967) the monthly rate was increased to \$1,820. On January 20, 1969 (T.B. 020746), the monthly rate was raised to \$1,925 effective April 1, 1969. The overtime formula was abandoned effective April 1, 1968, and each pilot was to be remunerated for the time he personally worked in excess of an average of 50 hours per week at $1\frac{1}{2}$ times his hourly rate. It is worth noting that the order granted the authorization, which the Department of Transport had sought, to meet with representatives of the Corporation of Great Lakes Pilots for negotiations on the subject of pay and working conditions for the 1968 and 1969 navigation seasons. The last method of computing overtime remuneration never became effective as such because it again failed to take into consideration that it is availability that must be remunerated. A 1969 amendment (T.B. 025213 dated March 11, 1969, with retroactive effect to April 1, 1968) provided for pooling overtime extra remuneration at time and a half the hourly rate, the aggregate amount being shared equally among the pilots on the basis of availability.

On March 20, 1969 (T.B. 687295) the monthly rate was raised to \$1,925 with retroactive effect to April 1, 1968, and \$2,026 effective April 1, 1969. The method of pooling overtime, effective April 1, 1968, was restated in different language but remained basically the same.

As a result of negotiations between the Department of Transport (with the approval of Treasury Board) and the Corporation of Professional Great Lakes Pilots in the last part of 1970, the remuneration, terms and conditions of employment of Prevailing Rate Employee pilots were again substantially modified (T.B. 702129, approved Feb. 4, 1971). The main changes may be summed up as follows:

- basic monthly rate, effective April 1, 1970, raised by 6% from \$2,026 to \$2,148;
- payment of the aggregate salary for the navigation season spread over 12 months so that the pilots receive a pay cheque every two weeks throughout the year (this, however, does not apply for superannuation purposes nor to the actual duration of employment which is limited to the navigation season);
- full monthly credits for annual leave and sick leave granted for each month a pilot has worked 10 days or more, and four extra days of rest per complete operational month;
- the system of work week and overtime abolished; since it is the pilots' availability which counts, they are now paid on this basis irrespective of the hours worked during any given period; as an

interim measure and for the 1970 season only, \$1,200 supplementary allowance granted each pilot in lieu of overtime previously paid for under the pooling formula.

In recent years, the same Treasury Board Minutes have applied *in extenso* to District No. 3 Canadian pilots and to the Lake Huron/Lake Michigan pilots but the monthly rate for the latter group is lower. Effective April 1, 1967, it was established at \$1,400 and progressively raised to \$1,792, effective April 1, 1970. The four extra days of rest provision does not apply to lake pilots.

The Public Service Staff Relations Act is now deemed to apply to ships' pilots. By a decision of the Public Service Staff Relations Board, dated October 6, 1969 (Ex. 1541(r)), the Canadian Merchant Service Guild has been certified as bargaining agent for the prevailing rate pilots of Sydney and Goose Bay, who were constituted as a unit of employees for collective bargaining. On account of the opposition of the Corporation of Professional Great Lakes Pilots who intervened in the proceedings, the Guild failed to be so certified for all Canadian prevailing rates pilots, as was intended. At present, the Canadian Great Lakes pilots who are Crown employees do not form part of any bargaining unit under the Public Service Staff Relations Act. However, their professional organization has effectively performed this rôle unofficially with the Treasury Board and the Department of Transport.

Among the fringe benefits to which the pilots become entitled as public employees are the reimbursement of all expenses incurred for travelling and living out in the exercise of their duties, or the payment of a non-accountable monthly allowance for that purpose; retirement and superannuation benefits on the basis of a shared contribution between the pilots and the Government; death benefits; annual leave; sick leave; special leave and compensation for legal holidays; participation in the Government's surgical-medical and hospital insurance coverage (with the premium shared with the Government); Workmen's Compensation coverage. For details of the actual remuneration of salaried pilots, see pp. 316 and ff.

(b) *De Facto Employees*

The Canadian registered pilots for District No. 1 and for Lake Ontario are exceptions to this prevailing rate employees' status.

Canadian District No. 1 pilots, i.e., the Kingston pilots, rejected the offer to become prevailing rate employees when it was made to them (p. 29), and preferred to retain the status they had enjoyed up to then, i.e., quasi-employees whose remuneration depends upon the dues their individual services, or those of all the pilots of the group, have earned. In fact, like the other pilot groups of the St. Lawrence Districts, the Kingston pilots have unofficially created, and are operating, their own pooling (pp. 320-1). For the Commission's views on such status, the pooling system as a method

of remunerating pilots and the questions of target income, maximum revenue and guaranteed minimum income, reference is made to General Recommendations 14, 20, 21, 24 and 25 (Part I, pp. 495, 521, 524, 545 and 549).

The Canadian Lake Ontario pilots have the status of *de facto* employees (in contrast to the Canadian Lake Huron/Lake Michigan pilots) merely because they were originally considered District No. 1 pilots with limited competency who were also potential District pilots. No attempt was made to alter their status when they developed into a sizeable group.

(c) *Pre-season and Post-season Pilotage*

Before and after the Seaway is closed, a few vessels may continue as far downstream as Prescott for a number of days, and the Welland Canal sometimes remains open longer than the rest of the Seaway. Since the limited demand for pilotage at these times can readily be met on a voluntary basis, the Canadian pilots in District No. 2 are, as a group, entered on, and removed from, the payroll on fixed dates. However, in District No. 3 the pilots are kept individually on the payroll as long as they are required. The cut-off date is given by the U.S. pool to the Department of Transport and holiday pay then starts. After the close of the navigation season, the pilots are free to volunteer and those who do so are despatched on a tour de rôle basis. During this period, the pilots are paid the dues they earn by their services.

This problem does not affect the Kingston District pilots and they continue to be paid their share of the net pilotage earnings on the basis of availability (Ex. 1541(t)).

(5) REAPPRAISAL AND DISCIPLINE

Preamble

In view of the general misconception of these two separate but related subjects (pp. 23-4), it is pertinent to restate the distinctions briefly. For a detailed study, vide Part I, C.9 and the Commission's General Recommendations 26-38 (Part I, pp. 556 and ff.).

Reappraisal must not be confused with discipline, nor licensing with directing the service, but discipline is related to all three functions.

Reappraisal is part of the licensing process. Its purpose is to ensure that the licensee remains fit and qualified as long as he holds his licence (known under Part VIA as a *registration certificate* in the case of a pilot, and *certificate of qualification* in the case of a ship's officer). The exercise of the pilot's profession, like any other, can not be restricted except through unequivocal, valid legislation and only to the extent so provided. Unless there

is a specific provision to the contrary, a licence is not a privilege but an acquired right of which a pilot can not be deprived except as specifically provided in the governing legislation.

Control over the provision of pilotage services pertains to another field altogether. For the pilots, it entails absence of freedom to exercise their profession and prevents them from acting as self-employed entrepreneurs. This absence of freedom may result either from a contract or from legislation. A pilot freely abandons his status as an independent contractor when he enters into a contract of employment or into a partnership agreement with his fellow pilots to share pilotage tasks. The state may also deprive a pilot of the free exercise of his profession and subject him to administrative control when public interest demands, but only through specific legislation.

Discipline is exercised in two distinct fields: first, professional ethics, or what might be termed the code of service discipline, i.e., the list of offences that can be created in the Act or by regulations; secondly, the coercive provisions designed to enforce the orders of the authority, i.e., the offences that may be created by administrative regulations, such as working rules, despatching procedures and the orders of the administrative authority and its despatchers. Both types of offences should be dealt with as penal matters. On the other hand, a pilot who commits any of the most serious offences or repeats lesser ones creates a presumption of unreliability and should be reappraised for moral unfitness, provided always that this action and its extent are specifically provided for in the governing legislation.

Unless specifically stated in legislation, a given status may not be made one of the terms and conditions of a pilot's licence. Hence, in a pilotage area where licensing exists, possession of a licence is an implied prerequisite for a contract of engagement; otherwise, the contract would be null and void as against public interest. However, unless specifically provided for in legislation, the converse would not be true (Part I, Rec. 12, pp. 491–3).

(a) *Summary of Provisions Affecting Discipline*

U.S. and Canadian Great Lakes pilotage legislation has been studied at various places in the Report in connection with aspects of control over pilots; these observations are summed up to provide a comprehensive view.

The situation is fully covered in United States Great Lakes pilotage legislation. The duration of the registration certificate, the required qualifications and the terms and conditions of the certificate which are not already stipulated in the Act are to be established by regulations and the licensing authority has power to suspend or withdraw the registration when the qualification standards are no longer met or when the pilot violates the terms and conditions of his certificate (pp. 36 and 44).

The U.S. Act provides for the establishment of full control over the provision of services through the device of the pilots' pool. A pilot using the facilities of the pool, irrespective of his nationality (U.S. Great Lakes Pilotage Regulations, sec. 401.340) is subject to its rules, regulations and punitive sanctions. These rules and regulations become part of pilotage legislation and, hence, any violation renders the U.S. offender liable to lose his registration certificate as a result of reappraisal proceedings. A U.S. pilot who refuses to join the pool is deemed to be unavailable and, hence, in violation of one of the terms and conditions of his certificate (p. 45).

When a U.S. pilot comes under exclusive Canadian jurisdiction it is not clear whether failure to comply with any of the local working and despatching rules or the despatcher's orders renders him subject to reappraisal under sub-sec. 4(c) of the United States Great Lakes Pilotage Act, since these rules and orders do not form part of U.S. legislation. The question has now arisen because U.S. pilots are serving in District No. 1 and on Lake Ontario, both of which are under the exclusive administrative jurisdiction of Canadian authorities. The existing operational rules no longer apply and the new rules will not form part of U.S. legislation. It would appear that secs. 401.210 and 401.340 of the Regulations would be sufficient authority in this respect: one of the terms and conditions of a U.S. pilot's registration certificate requires him to be "continuously available under the terms and conditions as may be approved or prescribed by the Administrator" and to use the established facilities and services, U.S. or Canadian, under pain of being considered unavailable. There is no problem where operational rules have been established jointly by U.S. and Canadian pools because approval by the Administrator makes them part of U.S. legislation.

By contrast, Part VI A is silent on all aspects of reappraisal, pilotage offences, the code of service discipline, operational authority and penal sanctions. Unless Part VI C.S.A. is brought into application by the creation of a Pilotage District, the only possible offences a Canadian registered pilot may be charged with are those in secs. 369 and 371 (p. 28) and they can not lead to the suspension or withdrawal of his registration certificate. None of the statutory courts which may be convened under Part VIII C.S.A. has any power over a pilot's registration certificate (p. 28). The disciplinary powers the Department of Transport has over the registered pilots who are its prevailing rate employees are merely of a contractual nature and may affect only the pilots' remuneration and employment but not their certificates. There is no legislative provision to make despatching and working rules (and the pilotage offences defined therein) binding on a registered pilot as such; they may be binding only as employer's orders for those pilots who are Crown employees. However, they have no binding effect where the contractual relationship does not exist, e.g., U.S. registered pilots under Canadian jurisdiction, or the

Canadian registered pilots of District No. 1 or Lake Ontario. The Kingston Pilotage District By-law can not serve any useful purpose in this regard (pp. 154 and ff.) since Part VI C.S.A. does not provide for the operational control of the service (Part I, C. 9). For the study of disciplinary and re-appraisal powers under Part VIA, vide pp. 12, 23 and 24.

The binational character of the Great Lakes system is a serious impediment to carrying out the necessary inquiries, to the judicial process involved in the exercise of reappraisal powers and to the enforcement of discipline because neither Canada nor the U.S. has extended the necessary extra-territoriality to the authorities and courts concerned. Re the investigation of shipping casualties in U.S. waters involving a Cornwall District pilot, see Part IV, p. 951.

At the time of the Commission's hearings, the Supervisors for the Kingston District and Port Weller reported that they had had very little difficulty over pilots' discipline. In District No. 2, disciplinary measures had to be taken in 1963 against Canadian pilots for being under the influence of intoxicating liquor. There had also been a number of lesser offences involving the despatching rules, mostly due to the pilots' heavy workload. Because of the shortage of pilots, it was not always possible to provide a relief at lock 7 in the Welland Canal for pilots who had been on duty over 15 hours and the despatchers then had no alternative but to order the pilots to remain on board. Some pilots refused to do so on the ground of the safety of the ship, alleging that they were too tired to perform their duties. These cases were dealt with administratively and days of suspension were awarded after the pilots concerned were given an opportunity to present their defence. The legality of such proceedings was never challenged in court (Exs. 1005(c.III), 1017 and 1056).

COMMENTS

Canadian Great Lakes pilotage legislation is deficient in three main areas:

- provisions to define, affirm and sanction the surveillance and reappraisal powers of administrative authorities;
- authority to direct and control the provision of services by Canadian registered pilots;
- parallel legislation by Canada and the U.S.A. to assist the authorities of both countries to proceed against offenders.

These deficiencies weaken authority and prejudice both the interests of the service and the safety of navigation. Remedial action should be taken without delay.

Except for the extension of extra-territoriality, which should be settled by treaty, the other requirements affecting licensing, reappraisal, discipline,

operations and related functions are the same as for the rest of Canada and Gen. Recs. 14 and 26–38 inclusive (Part I, pp. 495–9 and pp. 556–81) apply to the Great Lakes system as well. The complex factual situation has been somewhat simplified in recent years by discontinuing dual operational authorities.

While the Commission fully approves of the provision in various operational rules authorizing preventive suspension, it disagrees with the automatic punishment the imposition of such suspension involves. These rules require the despatcher to take a pilot's name off the despatching list for 24 hours when any of the situations listed occurs and, whether or not the pilot was at fault, he is considered unavailable for that period with the financial loss this may entail. In addition to possible injustice to the pilot concerned, this rule—as worded—may prove prejudicial to the safety of navigation because, in view of the possible consequences, a despatcher will hesitate to take a pilot off the list merely on suspicion that he is not physically fit, although public interest requires preventive suspension on the slightest suspicion and until such suspicion is dispelled. For the Commission's views on preventive suspension and the circumstances in which it should be imposed, reference is made to Gen. Rec. 29 (Part I, p. 563).

(6) SHIPPING CASUALTIES

Except for the Welland Canal sector which is fully situated in Canadian waters, shipping casualties involving pilots in the Great Lakes system come under the exclusive jurisdiction of either the Department of Transport or the U.S. Coast Guard for investigation purposes, depending whether the casualty occurred in Canadian or U.S. waters. The investigatory and remedial powers of each of these authorities are limited because their restrictive territorial jurisdiction has not been extended (as it should have been) to cover the common waterway. Reappraisal of a pilot's qualifications is part of the licensing function (Part I, C.9) and, therefore, each of the licensing authorities, i.e., the U. S. Great Lakes Administrator and the Minister of Transport, should have been provided with the necessary means and accessory powers, untrammelled by the question of territoriality but limited to their licencees, to permit the discharge of this essential part of their responsibilities. The result is the present unsatisfactory situation where these authorities can not carry out a complete and proper investigation and, in any event, would be powerless to take the proper remedial action against a pilot of the other nationality. A shipping casualty involving a Canadian registered pilot but occurring in the U.S. part of the Great Lakes system would be investigated by the U.S. Coast Guard; it would submit to the Minister of Transport the result of its investigation together with its recommendations if it considered reappraisal or disciplinary action was indicated. This is the

limit of its powers over Canadian pilots. On the other hand, the U.S. Coast Guard possesses effective remedial powers when the pilot involved is a U.S. citizen, i.e., withdrawal or suspension of the pilot's Certificate of Competency, which is a prerequisite for the validity of the registration certificate (p. 35). The evidence gathered by the U.S. Coast Guard is not admissible in evidence before any Canadian court and whatever findings they may have arrived at have absolutely no binding effect on a Canadian registered pilot. Under Part VIA C.S.A., the Minister of Transport, as licensing authority, has no investigating powers and the inquiry and courts he may convene under Part VIII C.S.A. (Preliminary Inquiry, Court of Formal Investigation and Court of Inquiry as to the Competency and Conduct of Officers) are without jurisdiction outside Canadian waters (for a similar situation, see Part IV, p. 950).

Appendix B is a table of casualties, accidents and incidents involving Canadian and U.S. Great Lakes registered pilots which have been reported to the Canadian authorities as shipping casualties, as the term is defined in sec. 551 C.S.A., for the years 1964–1969. This list is, therefore, incomplete in that it does not include casualties in U.S. waters with U.S. pilots involved (Ex. 1541(dd)). Except for District No. 3, these statistics convey a satisfactory picture of the situation because of the relatively equal participation of U.S. and Canadian pilots in the other sectors. There is one comparative table for each of the five groups of pilots, together with a detailed analysis of the cases, their nature and causes, for the year when there was the largest number of occurrences for each group. Reference is made to Part. II, pp. 88–90, for the definition of the method used in this Report for classifying so-called shipping casualties.

The casualty record of each group clearly reveals the different nature of their pilotage service, where the difficulties mainly lay and the adverse effect of spreading their services over an extended territory, thereby limiting their *expertise*.

The record of District 1 pilots is comparable to the Cornwall Pilotage District, as was to be expected because of the great similarity between the services they render. There are very few events in the course of navigation because any problems created by the physical features of the channel or by currents are easily solved. Apart from causes over which the pilot has absolutely no control, e.g., engine breakdown or failure to implement his orders, reduced visibility due to fog or other form of adverse weather remains the only serious natural hazard to contend with. Embarking and disembarking pilots in the stream at the Cape Vincent boarding station is a manœuvre fraught with danger when wind prevails because the boarding area is narrow and unsheltered and, if a ship has to slow down below her manœuvring speed, she is liable to be blown ashore (pp. 221 and 235). Bank suction is also a common cause of casualties due to the width of the

channels: if a ship passes too close to the edge of a narrow, dredged channel she is drawn toward the bank—a situation the pilots are well aware of and should be able to handle.

Most incidents, however, occur while manœuvring at close quarters during a lockage—the effect of wind on a light or partially laden ship is the main hazard to contend with—but damage is always relatively minor because vessels proceed very slowly during this process.

The clean record of the Lake Ontario pilots mainly reflects the absence of particular hazards while navigating the open waters of Lake Ontario; the minor casualties in which they were involved occurred during berthing and unberthing assignments.

At first view, the District No. 2 pilots have the worst record but this is more apparent than real since they are the largest group. However, it is also believed that dispersing their services from Lake Ontario to Lake Michigan has not been conducive to them acquiring the high standard of local *expertise* required to transit the Welland Canal and the congested channels of the Detroit River and St. Clair River safely and efficiently.

The lake pilots of the Lake Huron/Lake Michigan sector again have a clean record. These pilots were at times required to proceed to District 2 as part of their training as potential pilots for that District (pp. 183–4) and this explains their involvement in accidents as far east as the Welland Canal. The remarks concerning the Lake Ontario pilots apply here as well.

The almost impeccable record of the District No. 3 pilots is partly due to the fact that the available statistics show only a very small portion of their activities, i.e., they relate only to casualties in Canadian waters. As far as the Sault Ste. Marie locks are concerned, the statistics cover only the seldom-used Canadian lock and for casualties elsewhere only those in which the few Canadian pilots were involved. Therefore, the picture is far from complete. These figures reflect, however, the fact that open water navigation, which accounts for most of the services rendered by District 3 pilots, presents no particular hazard. It should also be noted that there is only one lock to be negotiated and, by comparison, there is much less traffic in the St. Marys River.

5. PILOTAGE OPERATIONS

PREAMBLE

In the continuous waterway formed by the St. Lawrence River and the Great Lakes system pilotage is a necessary service because legislation in both Canada and the United States requires that ships be navigated in specified confined areas and that a pilot be on board in the open waters of the Lakes. Since this service is provided by different groups of pilots *en route*,

each within its own sector, boarding areas must be established at changeover points at the limits of the territorial competency of each group, and at intermediate points if a complete transit of a District or sector would entail an abnormal workload. To achieve the best results the authorities in charge of operations at the boarding areas must coordinate their planning and other activities. Their main objects are to avoid delaying ships for lack of pilots in the boarding area and, at the same time, to distribute the pilots' workload as fairly as possible under reasonable working conditions with the least possible expense and waste of time.

Planning in recent years has been greatly facilitated by the coordinated maritime traffic information services which through the VHF network of the Traffic Control Systems provide pilotage offices with timely details of each vessel's requirements at each boarding area or port. There is now no direct radio communication between stations and ships, and ETA's at the next boarding area are no longer necessary because despatchers can follow the progress of ships through the system and, since they are aware of overall traffic conditions, are in the best position to establish in advance the time when relief pilots will be required (pp. 110 and ff.).

Normally, pilotage services are provided by experts in navigating a given sector of confined waters who do not proceed beyond that sector. For the Commission's views on the criteria for establishing such sectors, which under Part VI C.S.A. should usually form separate Districts, reference is made to Gen. Rec. 8 (Part I, p. 476). The same criteria apply when, for any reason, the District is divided into sectors (as in the Montreal Pilotage District with its *de facto* division at Trois-Rivières (Part IV, p. 622)). In such cases, the pilots are restricted to their own sector in order to ensure that their local *expertise* will be not only maintained but increased by continuous experience.

Pilotage operations in the Great Lakes system were prejudiced when these basic concepts were not followed. The compromise solution accepted in 1961 required the District pilots to provide services in the open waters of the Lakes and, as a result, they became a combination of Sailing Masters with general experience and average local skill and pilots in the Canadian meaning of the term. The Great Lakes pilots were to be registered for the confined waters of one District and also for all adjacent undesignated waters. The requirement to pilot in open waters has been maintained but, in view of operational problems, the waste of time of specially trained pilots and their constant complaints, a return to the Canadian system was gradually effected by appointing pilots registered for undesignated waters only, thereby reserving District pilots for in-District assignments. A recent development in the same direction has been the creation in District No. 2 of a special group of pilots for the Welland Canal.

Uninterrupted pilotage services can be assured only if the authority responsible for operations at a boarding station and adjacent areas is granted jurisdiction (either original or secondary) over all the pilots who are to be despatched from that station and those areas (Part I, Rec. 9, p. 482). Thus, a pilot in the course of his duties would come under the jurisdiction of a number of distinct operational authorities, depending where his assignments ended; these authorities are limited in the control of his activities by his territorial competency and by the complicated despatching and working rules which apply in various Districts and sectors of the system.

Coordination of the service (including pilot vessels at changeover points) also requires the establishment of boarding areas where all pilots terminating or commencing an assignment have legal competency to pilot (Part I, p. 481). The governing legislation fails to provide for joint territory where boarding stations are established. Originally, this posed no problem (and still does not) where the boarding station is situated in *undesigned waters*, because the jurisdiction of the District pilots extends to all undesigned waters adjacent to their District. However, the legal problem is inescapable where the boarding station is situated in *designated waters*, e.g., Cape Vincent. An indirect solution would be to extend the jurisdiction of the Lake Ontario and District No. 2 pilots to the waters of District No. 1 as far as the eastward limit of the Cape Vincent boarding area.

In a system where the pilotage service is to be financially self-supporting, all the pilots must share equitably in the operational expenses involved to the extent they use and benefit from accessory services.

The dual administration resulting from the joint U.S.-Canada agreement to participate at all levels became a serious bone of contention and proved unsound economically because of unnecessary duplication. In recent years, the general organization for the provision of services has also been altered to provide for sharing operational functions on a District basis and, in District No. 2, on the basis of separate designated zones (pp. 151-2).

(1) DISTRICT NO. 1

As in the Cornwall District, almost all ships are in transit and, hence, boarding areas had to be established at each end of the District where it is safest, most convenient and most economical for pilots and ships. At the eastern end of the District, such a site was the Snell lock area where the changeover between the Cornwall District pilots and the Great Lakes District No. 1 pilots can take place while ships are secured either at the wait wall or in the lock. This location posed no problem for the District No. 1 pilots since it was well within their territorial jurisdiction and was the obvious choice, but it created for the Cornwall pilots a serious legal problem which

to date is only partly solved (Part IV, p. 899 and Rec. No. 3, p. 1009). At the western end of the District, however, the changeover must be in the stream since the nearest place where vessels in transit can tie up is across Lake Ontario at lock 1 in the Welland Canal. Therefore, this necessitated a pilot vessel service located near the western limit of the District. It was established in the relatively sheltered area off Cape Vincent, well inside the designated waters of District No. 1, thus creating a problem as to the legal competency of pilots other than District No. 1 pilots who must use the boarding station (p. 216). Bulletins, including Notices to Mariners, in the Cape Vincent pilotage office provide the pilots with District information. There are similar bulletin boards at the pilots' accommodation at Alexandria Point and Snell lock.

(a) *Cape Vincent Pilot Vessel Service Dispute*

Prior to the opening of the Seaway, the normal channel traversed Kingston harbour where Kingston Pilotage District pilots and Sailing Masters changed over with the assistance of the pilot vessel service provided by an independent contractor, Captain L. S. Dougan. After the opening of the Seaway, the boarding station was transferred to the St. Lawrence River between Cape Vincent (N.Y.) and Alexandria Point (Wolfe Island) which had become part of the Seaway main channel and, hence, was the regular route for ships in transit, and even for vessels upbound to Kingston whose draught did not permit them to use the shallower northeast approach.

In 1961, the first year District No. 1 existed, pilotage operations were conducted as in the past, as a temporary arrangement pending the creation of the U.S. pilots' pool at Cape Vincent, i.e., the organization and direction of the provision of services were handled by the Canadian Kingston Pilotage District staff with a pilotage office at Cornwall and another at Kingston, the only difference being that 12 of the 32 pilots available for despatching were United States registered pilots. Both Canadian and United States pilots were despatched at the western end of the District by the Kingston office. They were not required to report in person at the pilot station when available for duty but were despatched from their home or place of residence in the immediate vicinity of the boarding station on the U.S. or Canadian side where the despatcher concerned telephoned them their assignment orders. The two U.S. associations operated their own pilot vessel service from Cape Vincent while the Canadian pilots continued to use Captain Dougan's service between the boarding station and Kingston. At the eastern boarding station, transportation to or from Snell lock was each pilot's own responsibility. For this reason, the U.S. pilots who preferred to reside in Massena were left free to make their own arrangements at their own expense. At first, the same system obtained for transportation between Cornwall and Snell

lock but abuses crept in and the Department of Transport decided to draw up a fixed rate contract with a taxi firm (vide Part IV, p. 956).

These arrangements were changed drastically in 1962. The St. Lawrence Seaway Pilots Association, Inc., which then included only 5 of the 12 U.S. registered pilots, had been authorized by the U.S. Great Lakes Pilotage Administration to form and operate the Cape Vincent pool. The Kingston pilotage office was closed and replaced by one at Cape Vincent manned by employees of the U.S. Association. The Cape Vincent pool took over despatching from that area and, as then provided for in the Memorandum of Arrangements, became responsible for billing and collecting pilotage fees for both U.S. and Canadian pilots. The Canadian administration performed the same functions at the Cornwall station. Immediately, there was a dispute over the discretionary powers which the United States legislation gave a minority group of pilots to bind all the pilots on financial matters connected with the organization and operation of the pool. Without consulting either the Canadian Authority or the Canadian pilots, the U.S. Association cancelled the previous pilot vessel service arrangements and established new ones on a different basis. It contracted out the service to a U.S. private entrepreneur, limited it to the boarding area itself (except for the occasional case where a pilot had to embark or disembark at the Lake Ontario approach to Kingston harbour) and prohibited the use of Kingston as a boarding area for ships in transit. The method of paying for pilot vessel service was changed: it was no longer on a trip basis which permitted each pilot or group of pilots to meet its own transportation expenses but, instead, the U.S. Association obligated the pool to pay the private contractor \$32,000 for the season. This amount had been calculated on the basis of the expected traffic at \$10 per trip. These arrangements placed the Canadian pilots at a substantial disadvantage in that, as a group, they were called upon to pay about two-thirds of the total but were still obliged to pay approximately the same amount as before for their transportation between Alexandria Point and Kingston, i.e., across Wolfe Island by taxi and from Wolfe Island to Kingston by pilot vessel (the ferry service was infrequent and did not operate at night).

The U.S. Association argued that the pool's responsibility for pilot vessel service extended no further than transporting the pilots between vessels and the nearest shore (Cape Vincent), that the pool had no obligation to embark and disembark Canadian pilots elsewhere and, hence, embarking and disembarking them at Alexandria Point was already a concession. Thus, the Canadian pilots were responsible for any extra transportation expenses if they chose to reside at Kingston rather than Cape Vincent.

Considered strictly from the point of view of U.S. pilotage legislation the U.S. pilots' reasoning was correct, and so it was held to be by the U.S.

and Canadian administrations, but when considered in the actual context it became an abuse of power. The Canadian pilots protested and refused to accept the *fait accompli* and the ensuing dispute, plus other existing points of contention, severely strained relations between the two groups of pilots. The Canadian pilots refused to use the Cape Vincent pilot vessel service (they used it only 240 times during 1962) but continued to use and pay for Capt. L. S. Dougan's services. They also often brought ships through Kingston harbour rather than the Cape Vincent boarding area. The matter was finally settled when the U.S. Association agreed to reverse its stand on the method of payment for pilot vessel service. By an agreement signed December 5, 1962, between the Corporation of Upper St. Lawrence Pilots, representing the Canadian pilots, and the St. Lawrence Seaway Pilots Association, the latter agreed that, commencing in 1963, the contract with the launch owner for pilot vessel service would be on a per trip basis as had been formerly the practice. The rates were set at \$10 for transportation between ship and Cape Vincent, \$9 between ship and Alexandria Point. Transportation between Alexandria Point and Kingston would remain the Canadian pilots' own responsibility or, as an alternative, a \$7.50 boat charge between Cape Vincent and Kingston was offered them. In addition, the U.S. Association agreed to reimburse the Canadian pilots the sum of \$10,750 by instalments to cover their share of the cost of pilot vessel service imposed on them in 1962 (Ex. 871). The Canadian pilots opted for the first solution, i.e., to embark and disembark at Alexandria Point and provide their own transportation between there and Kingston, for which they continued to use Capt. Dougan's services.

Although the District is now under sole Canadian management, these arrangements still stand. Ironically, since the beginning of the 1970 season, all the Canadian pilots have used Cape Vincent as their base and Capt. Dougan is seldom called upon to transport them to or from Kingston. The present pilot boat charge to the pilots at Cape Vincent is \$16.20 per trip (Ex. 1541(s)).

Pilot vessel service has to be provided occasionally at the Lake Ontario approach to Kingston off Snake Island at the northwest end of the harbour. Since this is a long distance from Cape Vincent, both Canadian and U.S. pilots ordinarily use one of Capt. Dougan's launches.

The 1961 Memorandum of Arrangements provided that income from pilotage fees would be divided between the United States and Canadian pools of each District *pro rata* to the "actively participating United States and Canadian registered pilots" after deducting the operating expenses of both pools. It added that the expenses charged in connection with the operation of the pool should be as prescribed by the Minister and the Secretary. This provision was interpreted as giving the Minister and the Secretary exclusive jurisdiction over the operating expenses of the Canadian

and U.S. pool respectively, but not as requiring their joint approval. Although the Department found a number of objectionable features in the operating expenses of the Cape Vincent pool, it came to the conclusion that it could not find any adequate legal basis to challenge the arrangements and the resultant financial responsibility of the Canadian pilots. The text of the Memorandum of Arrangements on this matter has not changed in substance. This source of contention has been eliminated as far as the Canadian pilots are concerned now that the District is under sole Canadian management because, although they have no official voice in District administration, they always have had substantial influence unofficially. It is assumed that the U.S. pilots are afforded a similar opportunity to express their views either through direct representations to the Cornwall Supervisor or at the U.S. Administrator's level.

COMMENTS

It is considered that the restrictive interpretation given the text was erroneous since it conflicts with the basic principles and intent of the Memorandum of Arrangements. The Memorandum is not legislation and, therefore, has no legally binding effect but it does create a moral obligation on the part of the two Governments to respect its text and spirit in their administrative decisions. The Cape Vincent administrative pool undoubtedly derived from the United States Great Lakes pilotage legislation alone its power to enter into a contract with a third party for pilot vessel service and, therefore, neither the Canadian Pilotage Authority nor the Canadian pilots in District No. 1 had any official voice in the matter. What can be criticized (although inexperience with the system may well have been the main cause) is that the arrangements were announced as a *fait accompli* rather than a proposal. Under these circumstances, operating expenses can not have any binding effect on the pool but only on the Association operating the pool, unless and until approved by the U.S. Administrator. Before granting such approval, the spirit of the Memorandum of Arrangements and simple justice require that those called upon to pay be at least consulted.

(b) *Wolfe Island Cut Dispute*

With the opening of the Seaway, Kingston harbour became obsolete as a changeover area for pilots, since it was by-passed by the Seaway channel south of Wolfe Island and direct access to the St. Lawrence River through the North Channel and the Wolfe Island Cut was not dredged to Seaway depth. The boarding area was relocated on the main channel between Cape Vincent and Alexandria Point; all ships in transit, irrespective of their draught, were to use it in order to facilitate operations in the boarding area and pilots were required not to bring any ship into Kingston unless it was her destination.

In 1962, during the dispute over pilot vessel service, some Canadian pilots brought their ships through the Wolfe Island Cut into Kingston in order to avoid using the Cape Vincent facilities. In addition to upsetting calculations of the cost of operating pilot vessels at Cape Vincent, operations at the boarding station were complicated because whenever the next on turn for a Lake Ontario assignment was a U.S. pilot he had to travel to Kingston to embark. In the summer of 1962, the Kingston District Supervisor was instructed by D.O.T. that this practice was to cease, since orderly despatching required all vessels in transit to proceed *via* Cape Vincent.

The Canadian pilots had the safety factor in their favour. Wolfe Island Cut is not dangerous within its draught limitations and Kingston harbour is safer for embarking and disembarking a pilot under way, since both are sheltered and free from currents as opposed to the strong currents in the relatively narrow passage between Cape Vincent and Wolfe Island. On the strength of this argument, the Canadian pilots had tried previously to have Wolfe Island Cut enlarged and dredged to Seaway depth. The implementation of this proposal, which had been accepted at first, was delayed and then rejected on economic grounds (p. 106). Wolfe Island Cut has not been used since the settlement of the pilot vessel dispute, except for light draught vessels bound to or from Kingston. The Working Rules and Despatching Procedures provide (subsec. A-4) that "All vessels are to be piloted via Cape Vincent Channel unless bound to or from the port of Kingston when they may use Wolfe Island Cut, if conditions are suitable."

(c) *Despatching Operations*

Planning. Originally, the planning of pilotage operations was necessarily the local responsibility of each pilotage office and depended upon the notices of requirement which ships were expected to give each pilot station sufficiently in advance to enable it to arrange for a pilot to be available when they arrived. Ships often failed to comply or gave inaccurate ETA's, thereby creating serious planning problems which the pilot station tried to prevent by exchanging traffic information and enlisting the assistance of the pilots on board who were required to ascertain pilotage requirements at the next boarding station and transmit such information a few hours before arrival. The recent creation of a network of marine information services (p. 110) has permitted accurate long-range planning of pilotage operations at each boarding station and centralization of District administration. Thus, in District No. 1, all planning (including Lake Ontario assignments) is now done at the Cornwall pilotage office. It has become the operational headquarters of District No. 1 and Cape Vincent is now merely a change-point for pilots.

Despatching procedure. These changes have not altered the despatching procedure which has remained the same and continues to be governed by the 1965 rules as amended (pp. 158 and ff.).

These rules are based on the equalization of trips system, the same as prevails in the St. Lawrence River Pilotage Districts. Presumably the Canadian pilots were instrumental in having this principle accepted and this may explain why the adoption of joint working rules became a serious point of contention in 1961 and 1962. No doubt the U.S. pilots considered the system unnecessarily complicated and not in conformity with the 1961 Memorandum of Arrangements which provided that the pilots were to be despatched on "a turn-for-turn" tour de rôle basis without regard for nationality. But the Canadian pilots had valid arguments similar to those which had warranted the adoption of the equalization of trips system in the Quebec and Montreal Pilotage Districts, i.e., failure to provide for the compulsory pooling of pilotage earnings as a necessary consequence of distributing the workload through compulsory despatching (Part IV, pp. 429 and ff.). The legislation failed to recognize (and still does) the basic principle governing the remuneration of pilots who are forced into the status of *de facto* employees, i.e., pilots of the same group should receive equal remuneration for equal availability. For the purpose of remuneration, the pilots were still considered free entrepreneurs and, therefore, their official remuneration was to consist of the pilotage fees each one earned by his services, less his prorated share of the operating expenses of each pilot station computed on the basis of his actual earnings from assignments originating from that station. The equalization of trips system was the only equitable way of preventing some pilots from making a larger number of trips (hence, more earnings) than other pilots with equal availability but who had the misfortune to obtain longer assignments due to bad weather, traffic congestion or other reasons. An alternative solution to the complicated equalization of trips system would have been single pooling of all pilotage earnings (such as has been adopted jointly by the U.S. and Canadian Lake Ontario pilots). However, since the Canadian and U.S. pilots formed their own separate pools, the equalization system remained the only equitable means of achieving equal remuneration.

The equalization system worked satisfactorily as long as flat rates were charged. Substantial discrepancies in the official revenue of each pilot are to be expected now that the rates vary with ships' dimensions. The equalization of trips system remains a final alternative and the circumstances which forced the pilots to adopt it should be corrected. For the Commission's views on the system, reference is made to Part IV, Recs. 8 and 9, pp. 1020 and ff.

The basic operational features adopted in 1962 have been retained ever since. In addition to the equalization of trips principle referred to earlier, they are:

- (i) The provision of services is fully controlled by a despatching system and no pilot may undertake any pilotage duty except as

directed by the despatcher under whose jurisdiction he is at the time.

- (ii) All pilots are treated alike, irrespective of nationality or the number in their group.
- (iii) All pilots are considered equally qualified and no distinction can be made about degrees of professional competency, not even in the case of a probationary pilot.
- (iv) Reflecting the fact that the service is mainly for ships in transit through the District, pilotage operations are based on one-way assignments. A pilot normally remains with the ship if a transit trip is temporarily interrupted by a call at an intermediate port, but a relief pilot will be provided if the ship then turns around.
- (v) Lake Ontario assignments for District No. 1 pilots are treated as cases of exception, Cape Vincent is a mandatory change-point, a lake assignment is given to a District pilot only as a last resort and a District pilot may not be unduly retained for lake duty and must be returned if he is needed for an in-District assignment.
- (vi) In case of emergency, all rules may be disregarded.

Assignment list. One despatching list is maintained for each of the two boarding stations. On each list appear the names of all pilots on station with their up-to-date lake and District trip credits and the time the name was entered. The names of all the other pilots are also shown with their trip credits together with the reason for their non-availability at the station concerned.

The list is adjusted twice daily at 0900 and 2100 according to the equalization of trips method, the pilots being listed in the order of their trip credits and precedence given to those with the smaller number of credits. An exception is made for those whose name has been entered on the list within the nine hours preceding the adjustment: they remain at the bottom of the list in the order they were entered (to assure them proper rest) and they equalize at the next readjustment, provided they have not been given an assignment by then.

Pilots are assigned in their order on the list, except for a lake assignment that has to be attended to by a District No. 1 pilot. In such a case, the assignment is given to the first pilot ready for orders who is more than one lake trip behind the pilot first on turn.

A pilot is given his assignment order two hours prior to the vessel's ETA or ETD and he is expected to arrive at the boarding area at least 15 minutes prior to ordered time. Shorter notice does not entitle a pilot to refuse the assignment and he must proceed as soon as possible.

Pilots are not relieved because an assignment lasts longer than usual, whatever the cause of the delay may be. However, pilots are changed after

a minimum of 24 hours of duty when all the necessary inquiries have been conducted and release granted in the event of long delays in transit due to a shipping casualty, extensive engine repairs, reloading cargo, etc., where a pilot's presence on board is required by the Master. The extent of relief duty is 48 hours, provided the ship has not sailed when the 48 hours expire.

Movages. Movages are attended to, if at all possible, on a voluntary basis. A movage assignment is offered to the first five pilots on the tour de rôle and, if none accepts, to any other pilot who volunteers. If no one accepts the assignment, the first pilot on turn is then ordered. At the completion of the movage, the pilot is reinstated on the assignment list in the position he held before the movage assignment but he is granted a 10-hour rest period before being placed second on turn.

The definition of "movage" in the Despatching Rules does not conform to the definition in the Kingston District General By-law (subsec. 2(g)) or in the Great Lakes Pilotage Regulations, amended (subsec. 2(cc)) or to the indirect definition in sec. 357 C.S.A. (Part I, pp. 135 and 217). It is not restricted to the movement of a ship within a harbour but also comprises trips of shorter duration, such as a trip in and out of the harbour of Kingston *via* the western entrance, a trip between the ports of Prescott and Ogdensburg, a trip from Snell lock to Massena or a trip between Snell lock and Eisenhower lock.

Trip credits. "Trip credits" is another term for "turns" used in other despatching rules (Part IV, p. 115). All in-District trip assignments count for one trip credit; lake trips count for one credit, provided the vessel was piloted; movages do not count for credits and, hence, their performance does not affect the position of a pilot on the assignment list except for an applicable rest period. There are also credits added for assignments lost due to absence for which equalization does not apply.

Trading turns. A pilot is authorized to trade turns with another pilot on station, provided the difference between their total trips is less than two and they have had their rest period.

Special rules at beginning and end of navigation season. In order to take care of the unidirectional traffic that occurs at the beginning and end of the season, the rules contain special provisions. At the opening of navigation, all pilots commence duty at Cornwall. Upon completion of their up-bound assignment, except for the first pilot on turn at Cape Vincent, they immediately return by land transportation to Cornwall. The pilot who was retained at Cape Vincent because he was the first on turn there may be relieved and allowed to return to Cornwall by land transportation after 12 hours on station, provided he so desires and his services are not required within the next six hours. This rule is obviously to correct the injustice that would result from the equalization of trips system, since he would otherwise be forced into a position of being substantially in arrears. Other pilots are

kept at Cape Vincent from time to time to meet expected requirements. After traffic is stabilized and due notice has been given to all pilots, the normal practice is resumed. The same system applies in reverse towards the end of the navigation season when traffic is mostly downbound. The date is established by the operational authority.

Absence. As a rule, the equalization procedure does not apply to periods of unavailability. Instead, when a pilot returns to duty after a period of absence, he is credited for despatching purposes with one trip credit for the first day of absence, and for subsequent days the average number of trip credits earned by the pilots who were available. One trip credit for the first day of absence is in itself a penalty since the daily average is always a fraction of a trip.

The rules provide a few exceptions, i.e., types of absence during which the pilot is not marked as being unavailable, thus permitting him to catch up with his lost trip assignments:

- (i) three days of illness during one navigation season, provided the pilot so elects;
- (ii) three days per season for special events, such as birth and death in the immediate family;
- (iii) absence for attendance at Pilots' Corporation meetings or for conducting business on pilotage matters, unless the pilot concerned requests to be marked unavailable, in which case the one-credit penalty for the first day will not be applied, and credit adjustment will be as specified by the Corporation;
- (iv) forced absence due to being called as a witness or party in any legal proceeding or hearing in respect of his licence or registration.

Winter navigation. The winter season extends from the date the Canadian and United States Great Lakes Pilotage Administrations fix as the end of the regular navigation season (which coincides with the closing of the Seaway) to the date established by the same authorities for the opening of navigation (generally the opening of the locks). During the winter season, pilotage services in District No. 1 are provided on a voluntary basis. However, in the event there are insufficient volunteers, pilots will be ordered from the tour de rôle as it stood at the end of the season. The list of volunteers is established on November 15, and after November 30 volunteers may not withdraw from this list. The winter tour de rôle is operated according to the same procedure. Winter earnings pertain in full to the pilots who earned them and are not subject to deduction for office and other expenses. However,

pilots are to pay their own travelling expenses, including pilot vessel service (p. 208) (Ex. 1541(t)).

In-season vacations. A mid-summer vacation programme may be authorized provided it does not interfere with the efficiency of the service and all United States and Canadian pilots participate equally.

It has been the custom since the creation of the District for all the pilots to take a seven-day mid-season holiday when the demand for service is low. In 1968, the vacation scheme had to be cancelled when the Seaway strike was settled to ensure that traffic would not be delayed for lack of pilots.

At the time of the Commission's hearings, the schedule was drawn up by the President of the U.S. pilots, the President of the Canadian pilots and the Canadian District Supervisor who met and compiled the list by lot.

In addition, in the early years of the District when the Canadian pilots were over strength and only 20 could be on the active list at the same time, the surplus pilots had to be forced to take leave of absence. Their off-duty periods were so arranged that all Canadian pilots would serve an equal period of time during the season. The order of these enforced holidays was also established by drawing lots. This system was abandoned when the number of Canadian pilots was finally down to 20 in 1965.

Two-pilot requirement. The despatching rules do not allow the despatching of two pilots jointly in any circumstances.

In their brief to the Commission, the Canadian pilots of District No. 1 recommended that two pilots be jointly assigned to tugs and tows because of the extensive duration of transit trips by such composite units (as much as 20 to 30 hours for one transit). They also asked that the requirement be applied to all vessels after December 1 because bad weather usually prevails at that time of the year and a second pilot would help to speed up trips. For the Commission's views on rigid dates being fixed in the regulations for this purpose, reference is made to Part IV, Rec. 10, p. 1026.

The joint assignment of two pilots has now been approved by a provision inserted in the U.S. Great Lakes Pilotage Regulations, 1970 amendments, pursuant to the agreement reached on the matter which was included in the 1970 Memorandum of Arrangements (pp. 42-3). The United States Regulations now provide that two pilots may be jointly assigned at a ship's request when deemed necessary in the interest of safety because of "anticipated long transit, uncommon ship size, adverse weather and sea conditions or other abnormal circumstances." Such a decision is to be taken by either the Director, Great Lakes Pilotage Staff, U.S. Coast Guard, or the Regional

Superintendent of Pilots, Department of Transport. The charge to the ship shall be one and one-half times the regular charge. The subject-matter is only indirectly covered in the Canadian Great Lakes Pilotage Regulations since they do not contain any provision concerning pilotage operations but merely provide a one and one-half times charge if and when two pilots are assigned (p. 25).

Although the despatching rules have not been amended in this connection, the situation is covered generally because the rules may be departed from as a case of emergency if authority is obtained from the United States Director or the Canadian Regional Superintendent.

(d) *Workload*

Except for Lake Ontario assignments which District No. 1 pilots no longer perform, the workload of the pilots in Great Lakes District No. 1 has the same characteristics as in the Cornwall District (Part IV, p. 961). Both Districts tend to have the same clients, i.e., mostly ocean-going vessels in transit through the St. Lawrence Seaway. They are both contiguous sectors on the St. Lawrence River between Lake Ontario and Montreal. The length of the trip is somewhat longer in District No. 1 (105 compared to 78 miles) but this is compensated by the fact that there is one less lock (3 compared to 4). The duration of transits is affected by the same factors: speed limit, weather conditions and locks where there may be considerable delay when traffic is congested.

As usual, the pilotage statistics available from various sources do not agree and the lack of definition of the data used makes accurate reconciliation impossible, but the discrepancies are not overly great and the various kinds of information provided suffice to convey a general picture.

The most comprehensive statistics available are the Statistical Reports Great Lakes Pilotage, jointly prepared by the U.S. and Canadian Pilotage Administrations (Ex. 1542) (the 1968 Report is reproduced as Appendix A). Unfortunately, the original format adopted in 1963 when the first Report was published has not been altered to reflect the basic changes that have taken place since and, therefore, their value is only general. They fail to segregate District and lake pilots and all statistical information regarding the latter is integrated with that about the pilots of the District to which they are attached. Hence, for the purpose of these statistics, Lake Ontario pilots are treated as District No. 1 pilots; Lake Huron/Lake Michigan pilots were listed as District No. 2 pilots up to 1968 and are now shown as District No. 3 pilots.

The following table is a compilation of various statistics and represents the aggregate workload of District No. 1 pilots (Lake Ontario pilots

excluded). These statistics did not permit segregating the number of assignments into designated and undesignated waters assignments. The term "assignments" includes movages and cancellations. The information was not segregated on the basis of Canadian and U.S. pilots because in the context of District No. 1 such a distinction is meaningless.

WORKLOAD OF DISTRICT No. 1 PILOTS*

Year	Number of Assignments†	Hours on Assignment‡			Total
		Designated Waters	Undesignated Waters	Detentions and Delays	
1961.....	3,405	30,574.8	7,573.4	5,902.9	44,148.2
1962.....	3,193**	30,753.3	n/av.	n/av.	n/av.
1963.....	2,765	27,104.0	1,502.6	2,995.4	31,602.0
1964.....	3,125	31,317.5	1,144.1	4,588.6	37,050.2
1965.....	3,514	35,974.5	1,701.4	6,076.6	43,752.5
1966.....	3,191	32,349.4	350.5	5,020.7	37,720.6
1967.....	2,911	29,228.4	12.6	2,771.3	32,012.3
1968.....	2,687	27,875.8	23.5	2,945.6	30,844.9
1969.....	2,716	27,464.4	nil	3,353.9	30,818.3
1970.....	2,477	25,064.3	nil	3,902.9	28,967.2

*Canada and U.S. combined, not including Lake Ontario pilots.

†Including movages and cancellations.

‡Including movages (cancellations not included because they are in number only).

**Taken from 1962 Kingston District Annual Report listing trips by District pilots as 2883 in-District and 310 on Lake Ontario.

SOURCE: Ex. 1215.

The detailed statistics available for 1967, 1968 and 1969 made possible the preparation of the following table representing the distribution of District No. 1 pilots' workload (Lake Ontario pilots excluded) both from the point of view of the number of trip charges and of hours on duty. In District No. 1, a trip assignment coincides with a trip charge (except when two pilots are despatched jointly). The difference in totals compared with the previous table arises from the fact that the assignment figures also include movages and cancellations. However, they are very few, e.g., in 1969, there were 11 cancellations and one movage.

DISTRICT No. 1 PILOTS*—DISTRIBUTION OF WORKLOAD

Year	Sector of Assignment	Number of Trip Charges	Hours on Assignment	
			Trip Assignments	Detentions and Delays
1967.....	In-District.....	2,897	29,223.0	n/av.
	Lake Ontario.....	1	11.0	n/av.
	Total.....	2,898	29,234.0	2,771.3
1968.....	In-District.....	2,677	27,832.0	2,939.6
	Lake Ontario.....	4	32.7	6.0
	Total.....	2,681	27,864.7	2,945.6
1969.....	In-District.....	2,701	27,484.8	3,353.9
	Lake Ontario.....	nil	nil	nil
	Total.....	2,701	27,484.8	3,353.9

*Not including Lake Ontario pilots.

SOURCE: Ex. 1215.

The two preceding tables prompt the following remarks:

- The first Lake Ontario pilots were appointed in 1962 and as their number increased (p. 180) they gradually relieved the District pilots from duty in undesignated waters.
- Most detentions resulted from vessels stopping at an intermediate port *en route* to load or unload. In accordance with the despatching procedure, the pilot remains on board. For instance, in 1969, vessels were detained at Prescott and Ogdensburg 133 times for an aggregate of 1,003.5 hours. Most of the delays occurred at Snell lock when pilots waited to board incoming ships—in 1969, this occurred 328 times for an aggregate of 605.6 hours.
- There are very few movages and cancellations, e.g., in 1969, there were 11 cancellations and only one movage. The movage took place at Ogdensburg and took 24 minutes.
- In order to obtain a more complete picture of the pilots' time on duty, travelling time should be added, i.e., transferring from one station to the other or joining a ship at an intermediate port or returning from such a port at the conclusion of an assignment. No travelling time statistics are available but the aggregate should not be considerable, especially compared with the other Districts and sectors of the Great Lakes system, since most assignments here are full transits, the distance between the two stations is not great and transfers between stations are not overly time-consuming because adequate land transportation is available.

The actual workload of District No. 1 pilots has decreased considerably and, in 1968 and 1969, reached an all time low under the combined impact of the lake pilots gradually taking over from the District pilots undesignated waters assignments and, after 1965, the gradual decrease in in-District demand. The impact of the latter factor on the individual pilot's workload was somewhat offset by a reduction in the number of District pilots when the few vacancies created by normal attrition were not filled (p. 180).

Since very few ocean-going ships call at any District No. 1 ports, this stretch of the River serves mainly as one part of their route westward and almost all assignments are full transits. This is well illustrated by the breakdown of the 1969 trip-assignment figures (Ex. 1215):

		No.	%
Full trips	(between Kingston/Cape Vincent and Cornwall/Massena/Snell lock/ Eisenhower lock).....	2,624	97.1
2/3 trips	(between Prescott/Ogdensburg and Snell lock, or between Cape Vincent and Iroquois lock).....	20	0.7
1/3 trips	(between Kingston/Cape Vincent and Prescott/Ogdensburg).....	51	1.9
Others	6	0.3
		2,701	100.0

As in the Pilotage District of Cornwall, the duration of a full transit does not depend so much on a ship's speed as on outside factors such as weather conditions and, mainly, congestion in the locks. In recent years, on account of complaints of property owners along the St. Lawrence, speed limits have been strictly enforced, resulting in a slight increase in the minimum duration of a transit. The average transit time, as quoted in the District Annual Reports (Ex. 843), is 12 hours for the years 1964 and 1965.

With good weather and favourable traffic conditions a full transit takes eight hours but under adverse conditions assignments may occasionally be much longer than the average. This is well illustrated in the following analysis of the workload of a typical District pilot which appears in the 1968 Kingston Pilotage Authority's Annual Report (Ex. 843) (vide also p. 235 and p. 238).

District Pilot J. Bell	Assignments	
	1967	1968
Total number of assignments.....	85	82
Total hours on assignment.....	947 hrs. 25 mins.	906 hrs. 30 mins.
Average length of assignment.....	11 hrs. 08 mins.	11 hrs. 03 mins.
Shortest time Cape Vincent to Snell lock....	8 hrs. 00 mins.	8 hrs. 00 mins.
Longest assignment.....	22 hrs. 45 mins.	53 hrs. 00 mins.

The average workload per District No. 1 pilot has always been, and still is, greater than the workload of the Cornwall pilots, despite the fact that the aggregate District workload is approximately the same, because at first the District No. 1 pilots had also to attend to Lake Ontario assignments but mainly because the number of Cornwall pilots has always been greater (Part IV, p. 924).

The official "effective pilots" figures can not be used to ascertain the average yearly workload per pilot because those available do not segregate Lake Ontario pilots from District No. 1 pilots. The following averages were arrived at by averaging the workload of the 80 per cent of the pilots participating who were the busiest. The year 1965 was chosen because it was the year when the aggregate workload in the District was the heaviest; the years 1968 and 1969 to show the most recent statistics (and also for District No. 2 to show the effect of the 1969 reorganization).

AVERAGE WORKLOAD OF THE 80% OF THE PILOTS WHO WERE BUSIEST

Year	Number of Days in Navigation Season	Average Number of Assignments per Pilot		Average Hours on Assignment						
		per Season	per Day	per Year					per Day	per Assignment
				designated waters	un-designated waters	detentions and delays	total			
1965.....	241	111.1	0.5	1,143.2	54.6	191.6	1,398.4	5.8	12.5	
1968.....	247	82.4	0.3	855.6	0.9	88.5	945.0	3.8	11.5	
1969.....	248	82.8	0.3	840.3	nil	104.7	945.0	3.8	11.4	

SOURCES: Exs. 1215 and 1542.

The effect of the tour de rôle based on the equalization system is noticeable from the statistics (Ex. 1215) for the year 1969, when the 19 Canadian and the 14 U.S. pilots were available for the entire season with the exception of a few days for illness and seven days' mid-summer compulsory leave each. The following table shows how the workload of District assignments was shared among the pilots.

Study of Pilotage in Great Lakes System

HOURS ON ASSIGNMENT BY DISTRICT NO. 1 PILOTS DURING 1969*

Number of Assignments	Number of Participating Pilots	Average High/Low Hours per Assignment	Total Hours on Assignment per Pilot
85	1	11.6	987.7
84	3	11.3—11.2	946.5 945.3 943.5
83	12	11.9—10.7	970.0 964.1 951.2 935.8 935.3 931.7 923.5 912.4 899.7 898.2 895.5 891.6
82	15	12.3—10.7	1,009.0 1,004.1 990.9 984.7 962.6 959.0 942.2 941.6 937.4 934.5 911.0 906.1 902.3 892.9 874.4
81	1	10.6	859.3
72	1	12.1	874.3
Total 2,716	33	12.3—10.6	30,818.3
Average per pilot 82.3		11.3	933.9

*Canadian and U.S. pilots combined (not including Lake Ontario pilots).
SOURCE: Ex. 1215.

These statistics show:

- (i) The two pilots last on the list had fewer trips because of absence due to illness but all the others were fully available. The small differences in the aggregate number of assignments performed are accounted for by the position they held on the tour de rôle at the end of the season.

- (ii) All Canadian pilots, except one, performed the maximum average of trips or were not below by more than two turns. According to their pooling arrangements, this entitled them to a full and equal share of their aggregate earnings. The last pilot on the list was a Canadian pilot whose aggregate period of illness during the season exceeded three days (p. 225). The pilot with 81 trips was a U.S. pilot, Luther Young, who was ill at the end of the season and died Jan. 8, 1970.
- (iii) Thirty-one pilots were constantly available. The effect of the tour de rôle based on the equalization of trips principle was an equal sharing of the workload in number of assignments but quite an unequal sharing in aggregate time on duty. The discrepancies at times are huge, for instance:
 - Three pilots who did 82 assignments were on duty longer than the 16 pilots who did more assignments.
 - The Canadian pilot who did only 72 assignments was on duty the same aggregate time as one pilot who did 82 assignments; the average duration of assignment was 12.1 hours in one case but 10.7 hours in another. Pilot Young's average short assignment (10.6 hrs.) is no doubt mainly accounted for by the fact that he became ill at the end of the season but had been constantly available up to then and had performed the maximum permissible number of assignments when the best conditions prevailed for fast trips.

The distribution of the aggregate pilotage workload follows the same pattern as in the Cornwall District (Part IV, p. 965 and pp. 999–1001). Navigation is closed for the months of January, February and March, the beginning of April and the last part of December. The pilotage workload normally follows a predictable pattern and is divided fairly equally from month to month with a slight decrease in the summer. Advantage is taken of the slack period to allow for a mid-summer seven-day vacation which results in maintaining the monthly workload of the pilots on duty at approximately the same level every month throughout the navigation season. At the beginning and end of the season, traffic is unidirectional which, with the combined effect of poor weather conditions, results in a heavier workload in aggregate time of duty per pilot, although the number of assignments remains the same.

In recent years, this normal pattern was often disrupted by unpredictable events, such as adverse weather conditions (fog, for instance, especially if it lasts several days, brings traffic to a halt and vessels wait in port ready to depart as soon as better conditions prevail), a shipping casualty blocking the channel, strikes in industries or services directly or indirectly connected with shipping. When normal conditions again prevail, there is often a

COMPARATIVE DISTRIBUTION OF A CANADIAN AND A U.S. PILOT'S TOTAL

Distribution of Total Aggregate Time	April	May	June	July
	No. hrs. mins.	No. hrs. mins.	No. hrs. mins.	No. hrs. mins.
Canadian Pilot J. G. Conrad Hamelin				
Trips: District.....	5 48 25	14 156 35	11 171 51	13 144 30
Lake Ontario.....			2 20 00	
Movages.....				
Cancellations.....				
Detentions* en route.....		1 9 00		
Land travel (between station / outport)†.....	4	1	3	2
Waiting at outports for assignment.....	31 05	201 50	198 49‡	144 75
At home between assignments§.....	640 30‡	376 35‡	329 20‡	454 15‡
	30 days	31 days	30 days	31 days
U.S. Pilot Edmund F. Fleming				
Trips: District.....	7 86 25	13.1 163 50	13.1 152 50	11.8 138 35
Lake Ontario.....				
Movages.....				
Cancellations.....				
Stand-by duty.....				
Detentions*.....				
Land travel (between station/outport)†.....	4	3	3	3
Waiting at outports for assignment.....	42 40	128 55	111 30	111 15‡
At home between assignments§.....	590 55‡	451 15	455 40	494 10‡
	30 days	31 days	30 days	31 days

sudden demand for pilotage which can not be met forthwith. Such peaks of relatively short duration are a common feature of the pilots' profession which they are accustomed to take in stride.

As elsewhere, irregular hours of duty are part of the normal working conditions of District No. 1 pilots. Provided he has had the necessary rest, the first duty of a pilot is to be available when his turn comes at any time of the day or night. This is why the pilots rightly consider that, except when they are on authorized leave of absence or during their rest period, they are always on duty.

The regular distribution of pilotage work throughout the pilotage season and the irregular hours that pilots had to keep in the performance of their duties is apparent from the records some pilots kept of the complete use of their time over certain periods up to 1964. The records for that year are considered more representative of the actual situation because there

AGGREGATE TIME ON A 24-HOUR BASIS DURING APRIL–DECEMBER 1964

August	September	October	November	December	Total
No. hrs. mins.	No. hrs. mins.	No. hrs. mins.	No. hrs. mins.	No. hrs. mins.	No. Days
11 105 05	12 136 45	12 129 10	12 153 00	2 72 45	92 46.6
.....	2 21 00	4 1.7
..... Nil
..... Nil
.....	1 .4
3	3	6	3	2	27 †
..... 202 40‡ 77 30 102 15 141 49‡ 28 45‡ 47.0
..... 436 15‡ 505 45‡ 512 35‡ 404 11‡ 642 30 179.3
31 days	30 days	31 days	30 days	31 days	275 days
14 150 00	11 131 20	15 156 15	12.6 190 55	2.4 70 15	121 51.7
.....	1 13 45	1 .6
..... Nil
.....	1 48 00 Nil
.....	1 2.0
..... Nil
5	3	7	3	2	33 †
..... 148 29‡ 104 30 121 10‡ 165 27‡ 17 30‡ 39.6
..... 445 31‡ 484 10‡ 466 35‡ 301 53‡ 656 15 181.1
31 days	30 days	31 days	30 days	31 days	275 days

*On board between ordered and sailing times, if any, included in *Trips*. †Included in *Waiting at outports* and/or *At home*. ‡Includes *Land travel* time. §Includes, re Pilot Hamelin—compulsory leave June 30–July 5, and holidays August 9–15, and re Pilot Fleming—holidays July 26–August 1.

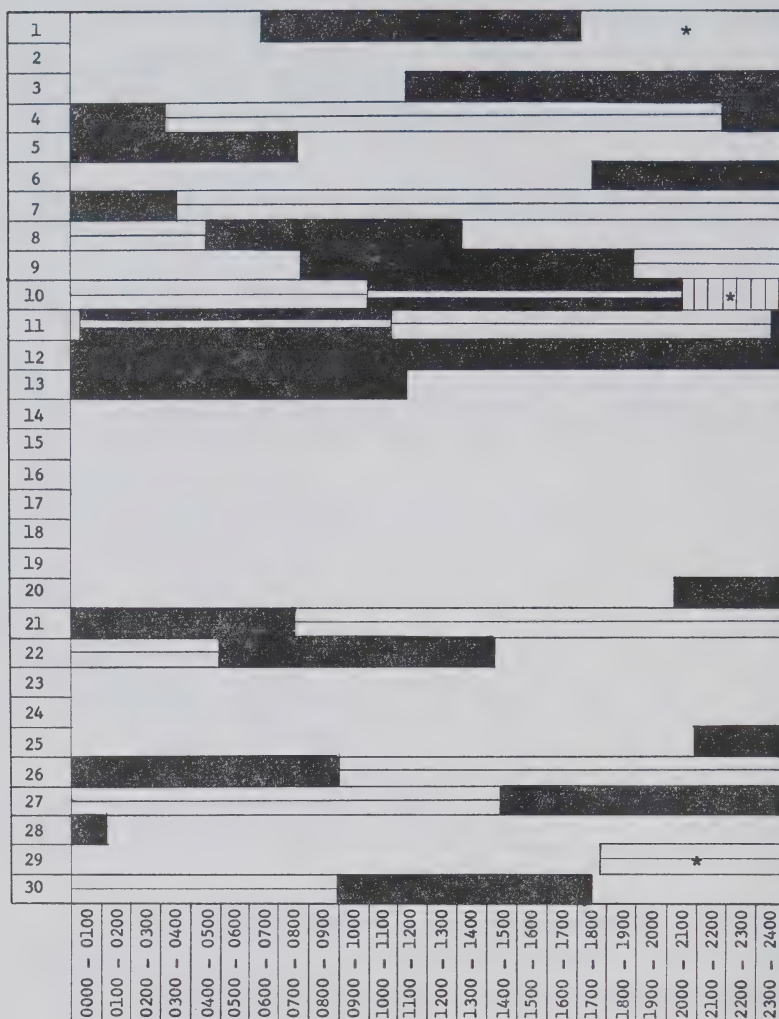
SOURCE: Ex. 838 (Kingston Pilotage Authority).

were then very few Lake Ontario assignments (89 out of a grand total of 3,122). However, the aggregate workload was somewhat heavier than in recent years. Canadian District pilot J. G. C. Hamelin and U.S. District pilot E. F. Fleming kept complete statistics of their 1964 season and the table on pp. 234–5 shows the analysis of their records on a monthly basis.




Analysis of their records provides, *inter alia*, the following information:

- (i) Both pilots were involved with a vessel grounding at the Cape Vincent boarding area. On June 21, the vessel pilot Hamelin had just boarded went aground in Alexandria Bay and his tour of duty extended over two days (56 hrs. 51 min.), mostly in detention time. On November 25, pilot Fleming was on standby duty for 48 hours (pp. 224–5) on board a vessel which had grounded at Cape Vincent.




NOVEMBER 1964 WORKLOAD OF DISTRICT NO. 1 CANADIAN PILOT J. G. CONRAD HAMELIN



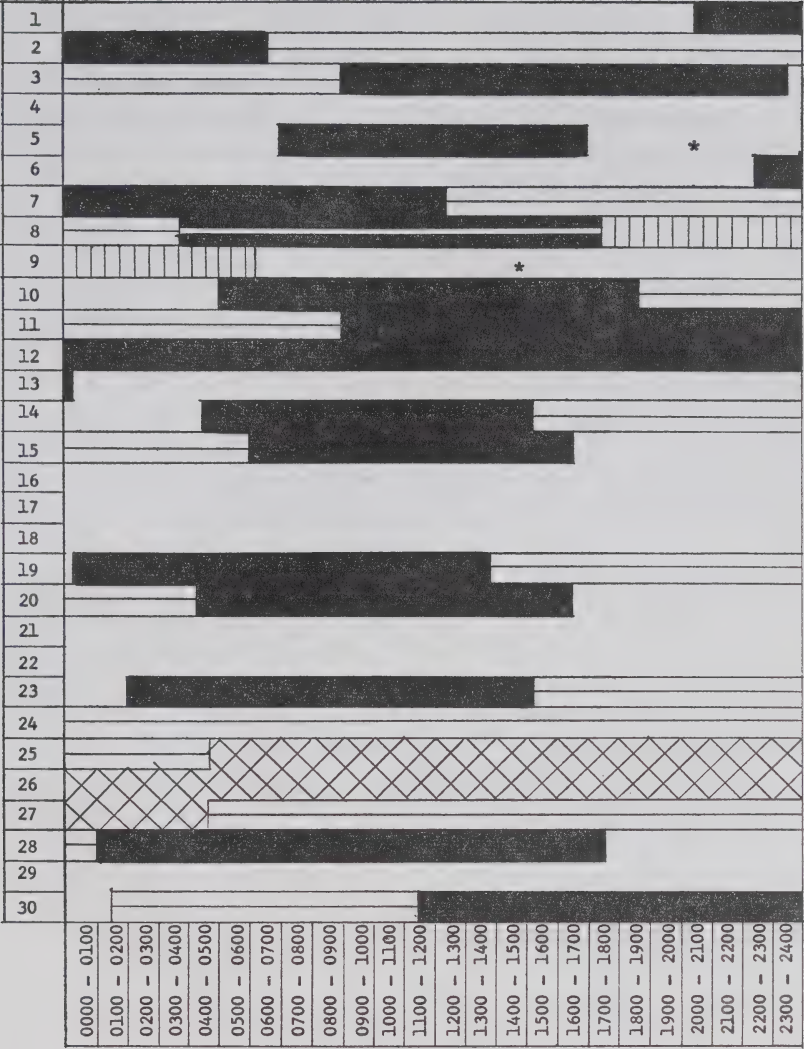
LEGEND:

-  Piloting in District
-  Piloting on Lake Ontario
-  * Including travel between stations and/or outports

Waiting between Assignments:

-  At home (Cornwall)
-  Cape Vincent
-  Lake Ontario (Port Weller)

NOVEMBER 1964 WORKLOAD OF DISTRICT NO. 1
 U.S. PILOT EDMUND F. FLEMING



LEGEND:

Piloting in District

Piloting on Lake Ontario

Stand-by duty

Including travel between stations and/or outports.

Waiting between Assignments

At home (Massena)

Cape Vincent

Lake Ontario (Hamilton)

- (ii) Pilot Hamelin had two trips of extensive duration: November 11, 35 hours 35 min., due to foggy weather; December 3, 54 hours, cause for the delay not stated. Pilot Fleming had four trips of unusual duration: May 10, 20 hours 40 min., reason not stated; November 11, 39 hours 10 min., due to dense fog; December 2, 28 hours 30 min., reason not given; December 5, 32 hours 45 min., reason not given.
- (iii) Pilot Hamelin was on six-day compulsory leave twice: June 30-July 5 and Nov. 14-19. There are no such entries in pilot Fleming's record. In 1964, the Canadian pilots were still over strength and compulsory leave had to be taken so that not more than 20 Canadian pilots would be on active duty at the same time (pp. 176-8).

The month of November was the busiest in 1964. The two graphs on pp. 236-7 show the distribution of pilot Hamelin's and pilot Fleming's time on a 24-hour basis for the month of November. It was also their busiest for that year, despite the fact that pilot Hamelin was on leave for six consecutive days.

The analysis of the duty time of these two pilots in November 1964 shows the irregularity of their working hours (a characteristic of the profession) and also the frequency of assignments of longer than normal duration in Districts where, due to the existence of locks, traffic congestion is bound to occur. In 21 cases, the trip was in progress at noon and in 11 at midnight. Out of a total of 25 District trips, four, all downbound, took less than 10 hours, the fastest 8 hours 30 min. Most took between 10 and 15 hours and the longest took 21 hours 30 min., 35 hours 35 min. and 39 hours 10 min. In the last two cases, the delay was due to fog. Despite the fact that November was the busiest month of the year, pilot Hamelin was not involved in pilotage on 9 calendar days and pilot Fleming on 8 days, one of which he spent at the Cape Vincent station.

(2) LAKE ONTARIO

Preamble

According to the original arrangements, the pilotage services required on Lake Ontario and in its ports were to be the joint responsibility of the Districts No. 1 and No. 2 registered pilots, with the exception of Kingston which could only be served by District No. 1 pilots because it was part of the designated waters of that District. This holdover from the discarded Sailing Master system conflicted with the true definition of pilot as a qualified expert in the navigation of a limited sector of confined waters. From the beginning, the pilots in Districts 1 and 2 complained and repeatedly requested

to be relieved of assignments in undesignated waters. They argued that such an extended territory was not conducive to the efficient operation of in-District service, led to a waste of experts' time and involved the individual pilot in financial loss because lake assignments were much less remunerative. Opposition was not limited to Canadian pilots but came from U.S. pilots as well: it is reported (Ex. 843) that a District No. 1 U.S. registered pilot repeatedly refused to undertake Lake Ontario assignments in 1961 and another resigned when he found there was no way to avoid them. The absurdity of the situation is self-apparent when it is realized that District 2 pilots, specially selected and trained to manoeuvre ocean-going vessels through the Welland Canal and its locks and navigate them in the congested, confined waters of the Detroit and St. Clair Rivers, were being wasted on simple translake assignments which any qualified mariner with general knowledge of Great Lakes navigation could handle. The vast extent of their pilotage territory results in considerable loss of time travelling or waiting either on board or at outports. The statistical records (p. 264) show that District No. 2 pilots spent on the average the same amount of time piloting outside their District as in, and with even more aggregate detention time.

The administrative authorities suffered no illusions about the relative unimportance of pilotage in the open waters of the Great Lakes in relation to the safety of navigation. When pilots were in short supply, priority was given to District assignments and vessels were issued waivers for undesignated waters (p. 142). As the demand for lake pilotage increased with the disappearance of vessels whose officers were able to meet the requirement for two round trips to qualify for a "B" certificate, a sensible solution was devised. This consisted of relieving the District pilots of this unwanted responsibility as much as possible by appointing pilots registered solely for undesignated waters. The lake pilots were gradually increased with the result that, despite the considerable increase in demand during the last five years, a Lake Ontario assignment is now a rare occurrence for a District pilot and they are now in sufficient numbers to meet both normal requirements and the occasional peak period. In his 1968 report, the District No. 1 Canadian Supervisor of Pilots reported on the Lake Ontario pilots' performance in these terms:

"These men did excellent work and were the epitome of co-operation. They took assignments without question, were seldom unavailable and threw their own rules to the wind to ensure ships were serviced."

Despite the presence of a now sizeable group of Lake Ontario pilots, lake assignments remain within the legal competency of Districts 1 and 2 pilots and they are still liable to be called upon during the occasional shortage of lake pilots.

There is no pilot vessel service specially organized for undesignated waters assignments. For those originating or terminating at Cape Vincent or

Port Weller, the boarding station pilot vessel service is used jointly. When a pilot has to board or disembark off a port, the despatching office responsible for the assignment makes the necessary transportation arrangements using local facilities.

(a) Working Rules and Despatching Procedures

The despatching responsibility for lake assignments is shared between the District No. 1 operational authority (formerly the Cape Vincent pilotage office) and the District No. 2 eastern sector operational authority. Their activities are governed and co-ordinated through the *Joint (Interpool) Working Rules and Despatching Procedures for Lake Ontario Assignments* (Ex. 1013 (A)). Under these rules, the District No. 1 despatching office situated at Cornwall is responsible for lake assignments westbound from Cape Vincent or originating from the ports of Cobourg and Rochester and any other Lake Ontario port east of these two ports. The District No. 2 despatching office at Port Weller is responsible for Lake Ontario assignments eastbound from Port Weller or originating from any of the Lake Ontario ports west of Cobourg and Rochester, including Toronto and Hamilton. For the arrangements concerning the contribution of the lake pilots toward the cost of operation of the two despatching offices, vide p. 311.

The main operational features of these rules may be summed up as follows:

- (i) Lake Ontario pilotage is to be performed primarily by Lake Ontario pilots. If a District pilot is sent on a lake assignment through necessity, he is given priority for a return trip to his District, and is returned by land if no return assignment is expected within 12 hours, or prior to that if so requested by his District operational authority.
- (ii) A District or lake pilot comes under the jurisdiction of the despatching authority for the port or place where his lake assignment terminates; hence, he has to report immediately to the District No. 1 operational authority, or the Port Weller pilotage office, as the case may be.
- (iii) At Cape Vincent and Port Weller, subject to the return trip priority of a District pilot, lake pilots are assigned to duty according to a regular tour de rôle. Their names are placed at the bottom of the list as they become available for duty. The equalization of trips system is not used and trip credits or turns are not counted.
- (iv) Reflecting the difference in pilotage duties between District assignments and lake assignments, there is no automatic rest period after the completion of a lake assignment unless the pilot finds he is so tired that he is unable to accept another lake assignment without rest.

- (v) Assignment orders are given at least two hours prior to the time of reporting or leaving by land transportation, but pilots may waive this requirement. When ordering a pilot, the despatcher has to take into consideration the transportation problems involved.
- (vi) Pilots may exchange turns once on the tour de rôle with the approval of the despatcher but a second exchange is barred until the assignment for which they have traded has been completed.
- (vii) To meet an expected demand, lake pilots may be transferred between stations in the order they appear on the list after those needed for local requirements have been retained. They are placed at the bottom of the list of the station where they are transferred in the order they appeared on the list of the station from which they came.
- (viii) In order to provide a more efficient and more economical pilotage service between Hamilton or Toronto and Port Weller, one lake pilot is kept exclusively for such assignments when a sufficient number of lake pilots become available. The tour de rôle does not apply to pilots so assigned and they are placed on duty in rotation every eight days.
- (ix) Lake pilots travelling by land from Cape Vincent to Port Weller are required to report to the Port Weller pilotage office from Toronto or Hamilton in case there are requirements at lake ports. A similar interim report to Cape Vincent must be made by pilots arriving at Kingston by land.

The situation regarding pre-season and post-season assignments and two-pilot assignments is the same as described for District 1 pilots (pp. 224–5 and 226–7).

From the point of view of stress, fatigue and difficulties, pilotage in undesignated waters can not compare with pilotage in designated waters and this fact is realistically recognized in the working rules. In principle, a pilot is not considered in need of a rest after a lake assignment before being re-assigned to duty. In a number of cases, a pilot is taken on board because of the legislative compulsory requirement but no use is made of his services except when entering the restricted waters of a port or a boarding area. Navigation in the open waters of the Great Lakes is not a demanding task for a qualified mariner: the courses are straight and there are no tides or cross-currents. Therefore, the pilots usually have ample opportunity to rest *en route*. Occasionally when navigation is difficult, it is the pilot's responsibility to decide whether or not he will be sufficiently rested for a further assignment; if not, he is entitled to request a rest period. Hence, duty time and workload on lake assignments and District assign-

ments are so different that they can not be compared and any comparison would be not only meaningless but misleading.

(b) *Workload*

The Commission has tried to decipher the various statistics available in order to establish the nature and extent of the pilotage demand in the undesignated waters of Lake Ontario and its ports, to establish the fluctuations over the years and determine the extent of the participation in the provision of such services by each of the three groups of pilots responsible, i.e., Lake Ontario pilots, District No. 1 pilots and District No. 2 pilots. This has proved almost impossible (unless all the records since 1961 are reanalysed and reclassified) and the task is not considered justified for the purposes of the Report. The main problem is that originally it was not contemplated that these assignments would be performed by a separate group of pilots. As a result, the assignments of the Lake Ontario pilots are included with those of District No. 1 pilots and the undesignated waters assignments of District No. 2 pilots are not segregated to show whether they were performed on Lake Ontario, Lake Erie, Lake Huron or Lake Michigan.

The following table was compiled from the assignment statistics available from Ex. 1215.

WORKLOAD OF LAKE ONTARIO PILOTS*

Year	Number of Assignments†	Hours on Assignment‡			
		Designated Waters	Un-designated Waters	Detentions and Delays	Total
1961.....	nil	nil	nil	nil	nil
1962.....	n/av.	n/av.	n/av.	n/av.	n/av.
1963.....	851	20.1	8,451.0	3,707.2	12,178.3
1964.....	1,441	298.3	13,273.7	2,587.2	16,159.2
1965.....	1,656	nil	15,305.5	2,606.3	17,911.8
1966.....	2,070	nil	18,421.0	2,530.9	20,951.9
1967.....	2,085	nil	17,586.1	2,990.0	20,576.1
1968.....	2,216	nil	19,287.5	2,073.3	21,360.8
1969.....	2,266	nil	20,569.4	1,761.1	22,330.5
1970.....	2,126	nil	19,029.1	1,597.9	20,627.0

*Canada and U.S. combined.

†Including movages and cancellations.

‡Including movages (cancellations not included because they are in number only).

SOURCE: Ex. 1215.

The statistics available for the years 1967, 1968 and 1969 indicate the extent of the pilotage demand for Lake Ontario and how the resultant workload was shared between the three groups of pilots operating in this sector.

DISTRIBUTION OF LAKE ONTARIO WORKLOAD ASSIGNMENTS*

Year	Pilots on Assignment	Number of Trip Charges	Hours on Assignment		
			Pilotage	Detention	Total Hours
1967	District No. 1.....	2	12.6	n/av.	n/av.
	Lake Ontario.....	2,009	17,584.5	n/av.	n/av.
	**District No. 2.....	74	618.5	137.4	755.9
	Total	2,085	18,215.6	n/av.	n/av.
1968	District No. 1.....	4	32.7	6.0	38.7
	Lake Ontario.....	2,120	19,278.3	2,073.3	21,351.6
	District No. 2.....	27	93.4	10.0	103.4
	Total	2,151	19,404.4	2,089.3	21,493.7
1969	Lake Ontario.....	2,195	20,581.6	1,759.6	22,341.2
	District No. 2.....	24	106.5	4.0	110.5
	Total	2,219	20,688.1	1,763.6	22,451.7

*On the basis of trip and detention charges.

**In 1967, 18 of the trip charges are credited to Lake Huron/Lake Michigan pilots. This is no doubt accounted for by the fact that the U. S. Lake Huron/Lake Michigan pilots were considered District 2 pilots in training (pp. 183-4) and such assignments formed part of their practical experience.

SOURCE: Ex. 1215.

The table on p. 244 shows the average workload of the Lake Ontario pilots calculated in the same way as for District No. 1 pilots (p. 231) and for the same years.

These three tables prompt, *inter alia*, the following remarks:

- (a) The lake pilots' aggregate workload has increased steadily over the years under the impact of two factors: the gradual decrease in "B" certificate-holders (pp. 140-2) and the gradual withdrawal of Districts 1 and 2 pilots from Lake Ontario assignments. The effect on the individual pilot of such an increase was corrected by readjustments in their number: a gradual increase in the period 1962-1967 from 4 to 15 and a reduction to 13 in 1968.
- (b) Because there are widely separated ports around the Lake, land travel must be substantial but, unfortunately, no statistical data are available.
- (c) There are few movages (e.g., 63 in 1969) which, except for the odd occasion, occur only in the harbours of Hamilton and Toronto. In pilots' time, they must account for much more than the short duty time recorded since a pilot has to travel long distances to attend to a movage and then return to his station if the movage did not occur when he happened to be in the port concerned. For 1969, there were 11 cancellations in all.

AVERAGE WORKLOAD OF THE 80% OF THE PILOTS WHO WERE BUSIEST

Year	Number of Days in Navigation Season	Average Number of Assignments per Pilot		Average Hours on Assignment				
		per Season	per Day	per Year			per Day	per Assignment
				designated waters	undesignated waters	detentions and delays		
1965.....	241	163.4	0.7	nil	1,525.8	264.6	1,790.4	11.0
1968.....	247	163.7	0.7	nil	1,436.6	159.9	1,596.5	9.8
1969.....	248	178.3	0.7	nil	1,602.1	146.2	1,748.3	9.8

SOURCES: Exs. 1215 and 1542.

The average duration of the longest trip on Lake Ontario is somewhat over 12 hours. Trips take longer in unfavourable weather but traffic congestion is not a problem in open waters. In the various ports, only a slight delay can be expected when a berth happens to be unavailable on arrival.

Most Lake Ontario assignments are transit trips between Districts 1 and 2, trips to or from Toronto and Hamilton and between those two ports and Port Weller. There are only occasional trips to other Lake Ontario ports by vessels subject to pilotage requirements.

The following table gives the breakdown of the aggregate Lake Ontario assignments for the years 1967, 1968 and 1969:

Lake Ontario Assignments	1967		1968		1969	
	No.	Average Duration	No.	Average Duration	No.	Average Duration
<i>TRIPS (Upbound and/or Downbound)</i>						
Cape Vincent/						
Port Weller.....	778	10.7	999	10.7	1,011	10.8
Hamilton.....	120	12.5	104	12.7	130	13.0
Toronto.....	508	11.1	441	11.2	525	11.3
Rochester.....	22	6.7	15	6.8	6	6.0
Oswego.....	10	4.3	6	4.3	4	5.4
Kingston.....	2	2.4	2	2.2	0
Other.....	5	7.0	21	10.3	24	11.8
Port Weller/						
Kingston.....	0	2	10.0	3	10.9
Oswego.....	6	10.3	1	8.9	0
Rochester.....	4	6.6	3	9.3	3	6.9
Toronto.....	322	3.0	267	3.1	319	3.1
Hamilton.....	119	3.1	131	3.6	75	3.3
Port Weller.....	2	1.8	27	1.2	14	2.1
Other.....	2	5.7	4	7.2	3	5.2
Hamilton/						
Kingston.....	3	12.5	0	0
Oswego.....	2	14.6	1	10.3	0
Rochester.....	2	9.2	2	10.7	0
Toronto.....	129	3.7	103	3.6	95	3.7
Hamilton.....	4	1.5	1	.5	0
Other.....	0	1	15.8	0
Toronto/						
Kingston.....	1	14.7	1	11.2	0
Oswego.....	2	9.8	2	11.6	1	9.5
Rochester.....	23	8.6	12	8.1	3	8.9
Toronto.....	5	2.2	0	2	1.0
Other.....	11	10.0	5	7.8	1	6.9

Study of Pilotage in Great Lakes System

Lake Ontario Assignments	1967		1968		1969	
	No.	Average Duration	No.	Average Duration	No.	Average Duration
Other/ Kingston.....	1	5.8	0	0
Other.....	1	1.3	0	0
Total Trips and Average Duration	2,084	8.7	2,151	9.0	2,219	9.3
MOVAGES						
Port Weller.....	1	1.2	1	.7	0
Hamilton.....	32	1.4	22	1.4	12	1.7
Toronto.....	59	1.4	59	1.2	51	1.4
Rochester.....	1	1.3	0	0
Cape Vincent.....	1	1.6	0	0
Total Movages and Average Duration	94	1.4	82	1.2	63	1.5

Detentions and delays are not substantial, e.g., in 1968, detentions occurred on 168 occasions, an aggregate of 511.1 hours, and delays in 491 cases, an aggregate of 1,248.5 hours, as compared with the aggregate duration of trips and movages in undesignated waters totalling 20,708.1 hours.

In his 1968 annual report, the Canadian Supervisor for District No. 1 gave the following figures regarding the workload of a typical Canadian lake pilot for 1967 and 1968.

Lake Ontario Pilot E. B. Crites	1967	1968
Days available.....	244	247
Days unavailable.....	0	0
Total assignments.....	166	165
Hours on assignment.....	1,488 h. 30 m.	1,422 h. 35 m.
Hours per assignment.....	8 h. 54 m.	8 h. 36 m.

The table (p. 247) and the graph (p. 248) are an example of how a lake pilot's time is employed. Because the tour de rôle works on the basis of availability for duty and the length and duration of assignments vary greatly, the aggregate workload may change to some extent, both in number of assignments and aggregate time on actual pilotage duty, from one pilot to another with equal availability during the same period. The case studied is the employment of time of the busiest lake pilot in the busiest month of 1964, i.e., pilot F. J. Brady in November 1964.

LAKE ONTARIO CANADIAN PILOT FREDERICK J. BRADY

Distribution of Total Aggregate Time on a 24-hour Basis	November 1964		
	number	hours	minutes
Trips			
Cape Vincent—Port Weller.....	4	56	00
Port Weller—Cape Vincent.....	10	111	18
Cape Vincent—Toronto/Hamilton.....	3	44	18
Toronto—Cape Vincent.....	3	43	24
Between Port Weller/Toronto/Hamilton.....	5	18	36
Kingston—Kingston.....	1	2	36
Total trips.....	26	276	12
Movages.....	0		00
Cancellations.....	0		00
Detentions* <i>en route</i>	7	28	18
Travelling.....	14		†
Waiting at outports for assignment.....	15	223	30‡
At home (Cape Vincent) between assignments.....	12	192	00‡
Grand Total.....	74	720 hours	

*On board prior to sailing time, if any, included in *Trips*.

†Included in *waiting at outports* and *at home*.

‡Includes *travelling* time between stations and/or outports.

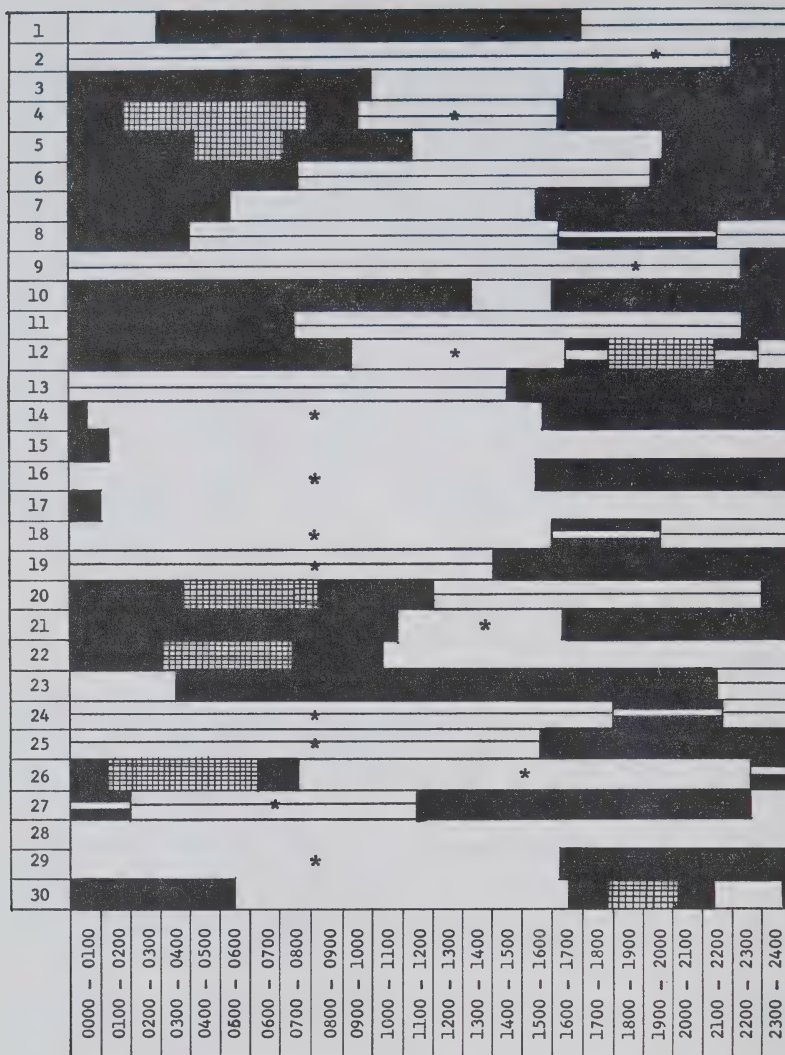
SOURCE: Ex. 1302.

At first sight, the lake pilots' aggregate workload may appear twice that of the District pilots (and frequently with little rest between assignments)—the explanation lies in the different nature of pilotage duties in undesignated waters. The graph shows, *inter alia*:








- (i) Out of the 26 assignments pilot Brady had during his busiest month in 1964, seven lasted much longer than 15 hours (including detention *en route*), the longest being 22 hours; six assignments took less than seven hours and the bulk, 13, took between nine hours and 15 hours.
- (ii) There was only one calendar day when he was not engaged in pilotage but, despite the large number of assignments he performed, on six occasions the time between assignments (including travelling time) exceeded 24 hours, the longest being 42 hours. On seven occasions, the time between assignments (including travelling time) was less than 10 hours, the shortest being 2 hours 48 minutes at Cape Vincent between two full transit trips (Nov. 10).

The table on p. 249 is a breakdown by number of assignments and aggregate hours of duty of the workload per pilot. It shows the result of a tour de rôle based on strict availability for duty. For the year 1969, all these pilots had equal availability of 248 days, except the sixth pilot who was absent one day and the 13th pilot who was absent 41 days.

NOVEMBER 1964 WORKLOAD OF LAKE ONTARIO PILOT FREDERICK J. BRADY



LEGEND:

-  Piloting between Cape Vincent and Lake Ontario
-  Piloting between Lake Ontario Ports
-  Detention En Route (location on graph approximate)
-  Including travel between stations and/or outposts.
-  Waiting between Assignments
-  At Home
-  Away from Home

Pilots in Order of No. of Assignments	No. of Assignments	Hours Sailing	Hours Detention and Delay	Total Hours on Board
1st.....	201	1,761.4	133.1	1,894.5
2nd.....	184	1,817.8	182.1	1,999.9
3rd.....	181	1,652.2	120.9	1,773.1
4th.....	180	1,664.9	142.1	1,807.0
5th.....	178	1,631.1	98.6	1,729.7
6th.....	175	1,628.8	131.5	1,760.3
7th.....	175	1,392.9	176.9	1,569.8
8th.....	173	1,631.3	136.2	1,767.5
9th.....	173	1,458.7	174.6	1,633.3
10th.....	171	1,579.2	145.8	1,725.0
11th.....	169	1,404.5	166.9	1,571.4
12th.....	167	1,648.9	87.5	1,736.4
13th.....	138	1,297.7	64.9	1,362.6

SOURCE: Ex. 1215.

While at first sight it would appear from this table that a tour de rôle based on availability for duty does not ensure equitable distribution of the workload, this is not so; even if it were, this is not the criterion in the pilotage service. Such statistics are incomplete regarding the actual time on duty of a pilot in that travelling time between port and pilot station and waiting for ship's arrival also form part of pilotage duty. The criterion for sharing pilotage work and, hence, the basis for pilot's remuneration is availability for duty.

(3) DISTRICT NO. 2

From the operational point of view, Great Lakes District No. 2 has been beset by problems (still partly unsolved) which arose largely because the basic principles of pilotage organization (pp. 165 and ff.) were not followed. The only practical solution is a complete reorganization to which the 1969 changes are a major contribution. The main weakness has been the tremendous waste of valuable time as the pilots travel long distances to and from assignments and lose many hours waiting at outports and idling on the open Lakes.

(a) *Undesignated Waters Pilotage Problem*

In District No. 2 this waste of time has been reduced to a great extent by gradually allocating assignments in undesignated waters to lake pilots—now the District pilots handle only a few Lake Ontario assignments and have been completely relieved of this task in Lakes Huron and Michigan since 1969 (Table, p. 264). At the time of the 1969 reorganization, the Lake Huron/Lake Michigan pilots, who had previously been shown as

attached to District No. 2, were transferred to District No. 3, probably to emphasize this basic operational change for similar purposes (Tables pp. 181, 182 and 183). However, the problem remains in its entirety on Lake Erie because the absence of a convenient boarding station at its western end has precluded the appointment of lake pilots. The Detroit change-point established in 1969 is not suitable for this purpose.

(b) Port Weller Boarding Area Problem

Since uninterrupted pilotage service is required, the obvious change-point for the pilots at the eastern limit of the District is lock 1 or its eastern approach wall, in which case it would be theoretically possible to dispense with pilot vessel service there. This proved impracticable because there was an inordinate waste of time resulting from the frequent traffic congestion which obliged vessels to wait in the anchorage area off Port Weller, often for many hours, so that embarked pilots had to be authorized to disembark and fresh pilots provided when ships could proceed into the canal. Another governing factor is that vessels subject to compulsory pilotage which take advantage of the "B" certificate release in undesignated waters arrive without a pilot on board and generally require one to enter the lock. The lack of legal competency of pilots (other than District No. 2 pilots) to perform lake assignments is not a serious objection because District No. 1 pilots already possess the necessary *expertise* and Lake Ontario pilots can easily acquire it. Downbound vessels have no difficulty leaving lock 1 and proceeding through the entrance channel to the open waters of Lake Ontario.

Originally, there was some doubt whether Port Weller was in designated waters but this was only a theoretical argument since it is clearly part of the Welland Canal. Any ambiguity has now been removed by the 1968 amendment which located for upbound vessels the downstream limit of the District in Lake Ontario off Port Weller (p. 14).

When the Port Weller/Sarnia pilotage area was first organized, no pilotage service was provided in the open waters of Lake Ontario and, hence, upbound ships arrived at the entrance to the Welland Canal without a pilot and, since no pilot vessel service was available, Masters were required to bring their ship into the lock, or to the approach wall if there was a delay. It is considered this was an unduly risky alternative to a pilot vessel service, although the problem was not so crucial at the time since there was much less traffic and the only ocean-going vessels were small (pp. 53-4). Nevertheless, this practice is undesirable where traffic is likely to be congested and every effort should be made to expedite ships' movements.

When experience proved the necessity for regular pilot vessel service at Port Weller, the Department of Transport made the necessary arrangements through the Supervisor of Pilots with a private contractor, Lakeshore Transportation Company (T.B. Minute 594907 dated April 12, 1962, Ex. 1032).

The service was provided by M.V. *Qu'Appelle* at \$12.50 per one-way trip. The cost of this service is entered as an operating expense of the Port Weller pilotage office (pilots' pool). Pilotage fees are all inclusive and remain the same whether or not a pilot vessel is used.

The procedure was for pilots to change over at the boarding area off Port Weller, unless the pilot in charge of a lake assignment belonged to District 2 or a vessel on an upbound trip had to wait in the anchorage area before proceeding into the canal. District 1 pilots were not allowed to pilot up to or from lock 1 because at that time it was situated, both for upbound and downbound movements, well inside the designated waters of District 2 to which their registration certificate did not extend. The same restriction was applied *a fortiori* to the Lake Ontario pilots when they were appointed.

Bringing vessels from the anchorage area to the wait wall or into the lock proved to be very time consuming. The District 2 pilots assigned for a canal transit had to embark at the boarding area or in the anchorage area and navigate into the lock, generally after securing at the wait wall and moving along it. This process would average four to five hours for a vessel third in turn. To curtail this loss of pilots' time, a port pilot system was developed in 1964, i.e., the District 2 pilots commenced or finished assignments at lock 1 and the port pilots, working 12-hour shifts, attended to all movements between the boarding or anchorage area and the lock. Each inbound ship was brought to the wait wall and left there while the port pilot attended to the movements of other ships until her turn came to move along the wall. For a time, this service was provided by two unregistered pilots, prevailing rate employees of the Department of Transport, with their remuneration forming part of the expenses of operating the Port Weller pilot station. When the experiment proved satisfactory, this port service was made the responsibility of the District registered pilots and they were taken in turn off the tour de rôle for that purpose. While this feature is still provided for in the Working Rules and Despatching Procedures, it was abandoned, no doubt because the problem was no longer as serious as in the early years. Traffic congestion at Port Weller has been substantially reduced as a result of improved Seaway operations. In 1968, the District limit was realistically amended for downbound vessels (p. 14) and District No. 2 pilots can now disembark at lock 1. Another significant factor must have been the difficulty of remunerating U.S. pilots when they provided this service.

In 1963, complaints were received that ships were delayed because a pilot vessel was not available. These delays occurred occasionally because there was only one launch in service. When an upbound ship requested a pilot and the launch was unavailable, the ship would lose her turn to enter

the canal. The Department of Transport conducted a survey which justified the complaints and decided the best solution was to curtail pilot vessel service as much as possible. However, because of the financial implications for the pilot vessel operator, implementation of this decision was deferred until the 1964 season. The result of the survey and the decision taken are contained in a letter dated June 17, 1963, from the Port Weller Supervisor to Lakeshore Transportation (Ex. 1010):

"The Department has surveyed the pilot boat service at Port Weller in view of questions raised by the Shipping Federation of Canada and United States Great Lakes Pilotage Administration.

The conclusion has been reached that considerable time is lost exchanging pilots off Port Weller station and sometimes delays have resulted in ships losing turns into the canal. This is no reflection on the pilot boat service.

It has been decided that Lake pilots will bring ships into the wall at Port Weller and will take ships out from Lock #1 to Lake Ontario, and such ships whose masters are familiar with these waters will bring their ships into Port Weller and take their ships out.

This Procedure may result in a marked drop in your revenue. Bearing this in mind the Department has deferred implementation of this order until the opening of 1964 season in order to allow you to recoup your capital investment represented by boats, etc."

Nevertheless, it was recognized that a pilot vessel service had to be retained for situations listed in a memorandum dated June 12, 1963, from the Port Weller Supervisor to the Superintendent of Pilotage:

"Ships are often delayed at the Port Weller entrance to the canal for various reasons such as canal congestion and weather conditions. It is unreasonable to keep a pilot sitting on a ship at anchor for any period from 6 to 48 hours waiting to disembark in the harbour.

Ships in possession of a B certificate are not all familiar with the area, in some cases a junior officer carries the certificate. Two voyages hardly familiarizes a ship handler with the harbour under varying conditions and it is our opinion many ships would enter this harbour at night without a pilot.

On occasions transfers of pilots are effected on the lake because of arrival of lake pilots from other ports by land. These despatches could not be effected without a boat."

When the Lake Ontario pilots heard of the proposal, they intimated that they would charge the normal berthing fee if they were required to berth ships at lock 1.

The proposal was put into effect with the 1964 season, although by that time the pilot vessel service operator had already remedied the situation with the addition of a second vessel, the *Razalia*. In order to give him the necessary financial incentive to maintain the service for those occasions when it was still required, an increase in the trip fee was granted in the fall of 1964.

However, except for downbound vessels, the previous practice has been resumed and pilots for upbound vessels change over off Port Weller by pilot vessel (Ex. 1541(v)).

(c) *Welland Canal and Lock 7 Change-point*

The transit of the 27.6-mile Welland Canal is exacting and time consuming. Originally, a normal transit took close to 24 hours and, despite numerous improvements in Seaway procedures (p. 91), still averages 12 hours. For this reason, Port Weller was a mandatory change-point on upbound trips, even if the pilot taking the lake assignment belonged to District 2, since it was considered that navigation in the canal and locks required the pilot's constant attention and continued alertness, both of which are reduced if he is tired. To expedite traffic in the 7-mile stretch between Port Weller and Thorold where 7 of the 8 locks are located (pp. 90–91) a change-point was established at lock 7 so as to provide well rested pilots on downbound trips. The Canadian pilots had an additional reason for requesting this relief even for upbound trips: they considered the transit of this sector a reasonable period of duty. Their stand was opposed by the U.S. pilots who, on account of their different method of remuneration, had another motivation (p. 201). The dispute was settled by a compromise: lock 7 became a mandatory change-point for Canadian pilots but optional for U.S. pilots (p. 259). This problem no longer exists because the Welland Canal sector has been served exclusively since 1969 by Canadian pilots who are prevailing rate employees. The pilots change over in the lock.

(d) *Port Colborne Boarding Station*

Pilotage was not instituted at Port Colborne until 1968, probably as a result of the change that year in the definition of the designated waters of District No. 2. Up to then, it was not clear whether Port Colborne as such was in designated waters since the western sector was described merely as “the Welland Canal”. In contrast to Port Weller, Port Colborne has substantial activities of its own as well as being the entrance to the Welland Canal. All doubt was resolved by the August 28, 1968, amendment which placed the upstream limit of the designated waters in that sector well off Port Colborne (p. 14). The few requirements for pilot vessel service off Port Colborne were increased only slightly by the small number of vessels coming from or going to a port situated in the undesignated waters of Lake Erie. Previously, they had to embark a pilot only before proceeding into the Welland Canal, or disembark a pilot when proceeding from the Welland Canal into Lake Erie, but now came under the same obligation if Port Colborne was their destination or the origin of their trip. Because Lake Erie lacked both lake pilots and a pilot boarding station at its western end, all other cases caused no problem since a District No. 2 pilot who was equally competent in the eastern and the western sectors of the District had to be carried on board across the Lake. In cases involving a transit of the Welland Canal, the pilots changed over at lock 7 and boarded or disembarked at the berth when a ship sailed from or to Port Colborne. This situation prompted the Port Weller Super-

visor to remark in his 1968 annual report that a pilot vessel service at Port Colborne would prove very expensive if the infrequent demand was to be related to cost.

The service was established September 9, 1968, under a contract with a local private contractor at \$27.50 per pilot trip. It was paid for out of the operating expenses of the Port Weller pilot station.

The need for this service increased substantially as a direct result of the *de facto* division of District No. 2 in 1969 when Port Colborne became the downstream limit of the U.S. pilots, e.g., non-exempt ships engaged in the Sandusky trade are required to take a pilot. The present practice for up-bound trips is that a Welland Canal pilot is in charge as far as Port Colborne where a U.S. pilot boards and conducts the ship to Sandusky (Ex. 1541(x)). This is apparent from the substantial increase in the cost of the service: in 1968, from Sept. 9 to Dec. 7, the total was \$2,702.50 but for the 1969 season, \$41,249.95 (Ex. 1023). However, the Port Colborne boarding station is not used by Welland Canal pilots assigned to ships crossing Lake Erie—they change over at lock 8 (Ex. 1541(w)).

(e) *Loss of Pilots' Time in the Western Sector*

District No. 2 was organized in the same way as District No. 1 with a pilot station at each end. This system is satisfactory when assignments are almost exclusively to ships in transit but is inadequate when a substantial portion of the demand is for port pilotage, especially if ports are a significant distance from the nearest boarding station. There are a number of very busy ports in the western sector of District 2, all a substantial distance from the only pilot station that existed in that sector prior to 1969, Detroit 50 miles from Port Huron, 110 from Toledo, and 145 from Sandusky. The two busy ports situated in the undesignated waters of Lake Erie and also under the jurisdiction of the pilot station at Port Huron are Cleveland and Ashtabula, respectively 210 and 280 miles distant. Without a pool of readily available pilots in the southern part of the sector, it has been a physical impossibility for the Port Huron administrative authority to provide even reasonably efficient service at these ports and shipping was greatly inconvenienced. Since the pilots had to report to the Port Huron station at the conclusion of assignments in that sector and were despatched from that station to meet requirements in these ports, they lost considerable time travelling back and forth or idling on board vessels whose Masters preferred to detain them during their stay in port rather than risk delay if a pilot was not available at departure.

In his 1964 annual report (Ex. 1023), the Port Weller District Supervisor stated that despite 732 waivers granted that year (vide p. 144) and the employment of two port pilots for Port Weller, the total time lost by ships awaiting pilots in the District had been "stupendous". He added that the value of the Port Weller service was considerably reduced when canal pilots

were in short supply because it was pointless to bring ships to the lock if there were no pilots to proceed up the canal. He added:

"In conclusion it must be mentioned that a great number of ships were delayed at various places awaiting for pilots, but chiefly at Port Weller. Due to the nature and size of this district, a great deal of pilots' time is occupied waiting for berths, waiting to finish handling cargo and considerable time in travel.

Efforts to remove pilots from ships in harbour have been frustrated by agents and shipmasters who do not give proper information to despatching authority especially when pilots are in short supply.

Public transportation is not good as would be expected in the industrial heart of North America, and this also nullifies the value of removing pilots and returning them to station."

In his 1965 annual report, he suggested dividing the District and establishing a pilot station at Detroit in an effort to improve the efficiency of the service without further increasing the number of pilots:

"We wish to offer for your consideration a proposal that the district be made more flexible or manageable by subdividing into different areas, and creating pools of pilots at different places. We have in mind a station at Detroit. All pilots embarking and debarking at this spot. Ships in Toledo and Detroit could be serviced from this pool. At Detroit there would be no difficulty with pilot boats or weather. The cost would be considerably less than in more exposed areas."

In 1966, the loss of pilots' time in the western sector was as crucial as ever and he remarked in his annual report:

"The ports of Toledo and Detroit were particularly congested with many ships having only a few hours cargo work before sailing, as a result, pilots were detained on board these vessels, anticipating early departure; in other cases ships were anchored in the stream off Detroit and some off Toledo, 13 miles out in the lake with pilots aboard. An all out effort was made to remove pilots from these vessels when possible. This met with moderate success.

...

It is obvious that the needless detention of pilots aboard ships waiting to handle cargo is the major cause of pilot shortage. The need for positive action is apparent since methods previously tried have met with little real success.

The compulsory removal of pilots at Detroit and Toledo upon arrival at the dock or a safe easy anchorage appears to be the answer."

The U.S. Pilots' Association responsible for operations in the western sector failed to take the necessary measures to assure the ready availability of pilots, at least in the main District ports of Detroit and Toledo, and shipping made repeated, bitter complaints. These spurred the Canadian and United States Great Lakes Pilotage Administrations to intervene. They required the Port Huron administrative authority to establish a mandatory change-point at Detroit and placed Ashtabula and Cleveland under the western sector in order to lessen the distance to a pilot station. Probably because the establishment of the change-point and pilot station at Detroit conflicted with their pecuniary interests, the U.S. Pilots' Association gave the proposal only half hearted support and it was unsuccessful. In his 1968 annual report the Port Weller Supervisor commented:

"The mandatory pilot change at Detroit was never effective and was abandoned after a few days trial. There were several reasons. It was found that the pilotage

staff was too small; there being only thirty-one effective U.S. pilots in the district as opposed to an expected force of forty-five U.S. pilots. A second reason was the failure to establish a Tour de Role at Detroit as would be normally expected. The pilots were all stationed at Port Huron which wasted a lot of time.

The second operational change - the placing of the ports of Ashtabula and Cleveland under the despatching control of Port Huron instead of Port Weller. This change was agreed to by Canadian Authority on the premise that a Tour de Role would be established at Detroit because Detroit is the hub of the western end of the district. The travel time was expected to be three hours to Cleveland or Toledo. The Tour de Role was never established at Detroit and pilots were still ordered back to Port Huron from Cleveland, Toledo, and Detroit. The result was no saving in pilots' travel time and a great increase in pilots' travel expenses, which is a waste of money."

In the circumstances, the U.S. and Canadian Pilotage Administrations were obliged to take action at the organizational level. In 1969, they made a *de facto* division of the District and restricted the pilots' territorial competency. Thus, a pilot boarding station and a pilot station at the southern end of the western sector became operational necessities as noted in (g) hereunder.

(f) *Port Huron Boarding Station*

The Port Huron boarding station, situated some $8\frac{1}{2}$ miles above the head of the St. Clair River where the deep waters of Lake Huron commence, is not difficult to operate. Pilot vessel service is essential. At present, it is provided by a local private entrepreneur as arranged through the pilotage administrative authority.

(g) *Operational Re-organization, 1969*

The 1969 re-organization (p. 166) set up a system of assignment areas. This actually made each sector of designated waters a separate District and divided Lake Erie pilotage assignments between the two Districts on the basis of types of assignment. A boarding area (referred to in the agreement as the Detroit mandatory change-point) had to be established at the western end of Lake Erie. Furthermore, District No. 2 pilots were relieved of all Lake Huron and Lake Michigan assignments and a similar ban was apparently placed on Lake Ontario assignments. Services in Canadian and U.S. assignment areas were made the exclusive jurisdiction of Canadian and U.S. pilots respectively; the only exception was that two Canadian pilots were to be retained in the western sector to provide service for local Canadian ports.

The Canadian assignment areas are:

(i) Welland Canal.

(ii) Lake Erie:

—transit trips both ways between Port Colborne and the Detroit change-point;

—one-way Lake Erie transits from Port Colborne past the Detroit change-point and into the harbour of Detroit, but not the reverse.

(iii) Western sector of District No. 2:

—the exclusive jurisdiction of the two Canadian pilots in the western sector is limited to movages in Canadian ports on the Detroit and St. Clair Rivers and one-way trip assignments from these ports to the Detroit change-point, but not the reverse.

The U.S. assignment areas are:

(i) Western sector of District No. 2:

—exclusive jurisdiction except for movages and one-way trip assignments reserved for the two Canadian pilots.

(ii) Lake Erie:

—all assignments except those allocated to the Welland Canal pilots, i.e., transit trips between Port Colborne and the Detroit change-point and one-way trips from Port Colborne to Detroit.

In other words, District No. 2 was divided into three pilotage zones: the Welland Canal, Lake Erie and the western sector of the District. The Welland Canal pilots, all Canadians, were given exclusive jurisdiction in the canal as well as most of the assignments in the undesignated waters of Lake Erie, but no jurisdiction in the western sector, except for Lake Erie transits to or from the Detroit change-point and to (but not from) Detroit harbour. The U.S. pilots were given exclusive jurisdiction over pilotage assignments within the western sector (except movages in Canadian ports in that sector and downbound trips from those ports to the Detroit change-point) and all other Lake Erie assignments.

The new system has been in operation now for two seasons and is reported “working effectively” (Ex. 1541(w)). The Detroit change-point is located in mid-stream off Detroit and is served by a pilot vessel used primarily to transport mail from Detroit. The cost of service—\$5 per trip—is paid initially by the Port Huron office and the Port Weller office reimburses its share at the end of the season.

(h) *Working Rules and Despatching Procedures*

The latest rules and procedures are dated 1967 (p. 169). Although they have now become almost obsolete, they are still being followed as far as general principles are concerned, until new rules and procedures are drafted for each sector. Individual provisions are applied in the light of the factual situation resulting from re-organization (p. 259).

The first despatching rules were issued March 15, 1962, when the District was temporarily under exclusive Canadian management. District operations were directed from Port Weller and the Sarnia/Port Huron despatching office was considered a satellite of the Port Weller headquarters to which it was required to make daily reports and whose instructions it was required to obey. The rules provided that the pilots were to be assigned

from either pilot station, as far as practical in regular turns, i.e., according to a strict tour de rôle with names being placed at the bottom of the list as soon as assignments were considered completed. Changes of turns were not authorized. A pilot who happened to be in any harbour was expected to handle movages of other vessels there. Except in case of urgency, the pilots were to be given a minimum two-hour advance notice of an assignment. Pilots were assigned to duty as if they were Sailing Masters. Since Port Weller was a mandatory change-point, District No. 2 pilots on a Lake Ontario assignment were not allowed to proceed westward through the canal. The only other mandatory change-point applied to Lake Erie assignments to ports east of Cleveland, in which case the pilot concerned had to embark or disembark at Port Colborne. In all other cases, a pilot had to remain on board from Port Weller to the ship's destination, even in Lake Michigan, unless it was in District No. 3 or Lake Superior, in which case the District No. 2 pilot proceeded as far as Detour. The reverse applied to a down-bound trip, e.g., a pilot boarding a ship at Chicago was expected to remain until she reached Port Weller. The exception for the Lake Erie assignments was soon deleted and the Sailing Master procedure then applied to all cases.

Provision was made for deleting from the assignment list one pilot during periods of congestion to bring ships from the anchorage to the tie-up wall below lock 1.

The 1964 rules placed the Port Huron and Port Weller pilotage offices on an equal basis and established a line joining Cleveland and Port Stanley as the division between their zones of jurisdiction. When the pilots completed an assignment, they were to report to the appropriate office and were not authorized to leave except as instructed by the despatcher. The assignment list at each station remained a true tour de rôle and the pilots were placed at the bottom of the list when they became available. They were guaranteed twelve hours' rest between assignments. The Sailing Master concept of despatching was retained and even extended, e.g., a pilot arriving at Port Weller from a Lake Ontario assignment was given the option of remaining on board and transiting the canal unless the ship was required to anchor off Port Weller. However, unless the canal trip was only partial, lock 7 became a mandatory relief point (provided relief pilots were available) but a pilot boarding at lock 7 on a downbound trip was not to be relieved at Port Weller if required for a Lake Ontario assignment. Observing that Lake Huron/Lake Michigan pilots were available and return trips had to be provided for District 3 pilots who had finished an assignment at Port Huron, Port Huron became a mandatory change-point for District 2 pilots (unless otherwise instructed by the despatcher) in which case they were to continue as far as Detour or the destination in Lake Huron or Lake Michigan. However, District 2 pilots downbound at Port Huron were expected to remain on board and continue without relief for the full transit of the District

unless they asked for relief. The provision for local service at Port Weller was retained and the duty period was not to exceed 12 hours.

These rules were superseded by new rules which became effective May 15, 1967 (p. 169). The main changes were as follows:

- (i) Port Weller became a mandatory change-point. District No. 2 pilots on lake assignments had to bring ships into the tie-up wall of lock 1, unless it was necessary to anchor off Port Weller, in which case they were relieved.
- (ii) Lock 7 remained a mandatory change-point for both upbound and downbound vessels, provided a relief was available. However, U.S. pilots on a full transit had the option of going through lock 7 without relief, provided they notified the despatcher upon arrival at lock 8 downbound or on receiving the assignment upbound. Automatic relief at lock 7 was to follow if the option was not claimed at the proper time.
- (iii) On a downbound assignment, pilots boarding at lock 7 were not to be relieved at Port Weller if required for Lake Ontario duty.
- (iv) At Port Huron, the changeover rules remained the same.
- (v) The rest period between assignments was increased to 14 hours, but did not apply to movages effected in the vicinity of the boarding station.
- (vi) The monthly rest period, which was previously available only to Canadian pilots, was extended to all pilots.
- (vii) Pilots who are officers of a U.S. Pilots' Association were authorized to be absent to attend meetings or conduct pilotage business without incurring the 24-hour-minimum-off-the-list penal sanction; they were to be placed at the bottom of the list as soon as they became available.

As stated earlier, the 1967 rules became obsolete with the 1969 *de facto* division of the District into Canadian and U.S. sectors, but new rules have not yet been devised and the former rules are still being applied with the necessary changes being made informally to meet the new conditions.¹

(i) *Pre-season and Post-season Pilotage*

The Canadian pilots in District No. 2 are considered off duty between the closing and opening of the navigation season. The few demands for

¹ New rules regarding the Canadian pilots of District 2 and the Port Weller despatchers have been drawn up with effect at the beginning of the 1971 season. They reflect the 1969 change in District organization and the 1971 amendments to the working conditions of Canadian prevailing rate pilots as provided for in Treasury Board Minute 702129, approved Feb. 4, 1971 (p. 206). They provide for reciprocal despatching service of the pilots of one sector by the administrative authority of the other sector when required, e.g., despatching by the Port Weller station of U.S. pilots from Port Weller on Lake Erie assignments. Lock 7 is now a mandatory change-point except for partial transits.

service just after the closing or before the opening of the navigation season and for icebreakers are handled by Canadian and U.S. pilots who volunteer. They are paid directly the dues they earn. Pre-season and post-season pilotage do not come within the terms and conditions of their employment as Crown prevailing rate employees (Ex. 1541(t)).

(j) *Workload*

The workload of District No. 2 pilots (except for Lake Ontario assignments which they now very seldom perform and Lake Huron/Lake Michigan assignments of which they were completely relieved in 1969) has the same general characteristics as the workload in other Districts but the vast size and peculiarities of District No. 2 make it a special case which is virtually impossible to compare as far as workload statistics are concerned. Such comparisons were frequently made in the past but they resulted in oversimplification and led to conclusions which were not only meaningless but actually misleading. The nature and characteristics of the pilots' workload vary basically in each of the three areas of the District.

- (i) The *Welland Canal* is unique in Canada. Pilotage there consists of 27.6 miles of artificial channel, including seven locks and one guard lock. Local knowledge is of little significance since there are few problems not found in similar canals elsewhere and the prime requirement is shiphandling of the highest standard, especially in the case of ocean-going vessels. Since more than half the 12 hours' average transit time is spent in the first nine miles where all the true locks are situated (lock 8 is a guard lock), this section is considered a full assignment for workload purposes. However, although the exacting pilotage duties involved in making a safe and speedy transit require a pilot's full attention, he has reasonable periods of rest between movements at the wait walls or in the locks. The rest of the transit is straight canal pilotage with no unusual difficulties except those created by the numerous bridges and the strong current below bridge 20 at Port Colborne (p. 91). Travel by land is also no problem in this sector because distances are short and connections adequate: the average time between Port Weller and Port Colborne is one hour.
- (ii) *Lake Erie* (including its undesignated waters) requires mostly uncomplicated open water navigation with safety enhanced by the practice of following separate upbound and downbound shipping lanes. Except in adverse conditions, a pilot has considerable time to rest *en route* after he has given his orders and turned over to the officer of the watch. His personal attention is required only in Pelee Passage, entering or leaving Port Colborne or other Lake Erie ports and in the confined channels leading to or from Toledo or Detroit

at the end or beginning of a translake trip. The nature of the pilots' workload in this sector of District No. 2, including most of its designated waters, can not be compared with District No. 1, and only partly with Lake Ontario, because there is a substantial amount of pilotage in the confined waters at the western end of Lake Erie.

- (iii) In the *western sector* of the District, which overlaps the Lake Erie sector described earlier because there is no boarding station at the western end of the Lake, there is river and port pilotage only. A pilot must pay constant attention while under way and has no opportunity for worthwhile rest. Although the physical features of the channels and ports do not present problems as severe as those in the Montreal District, the intense traffic creates unusual navigational hazards.

As in District No. 1 (vide p. 227), it has been equally difficult to obtain reliable statistics. Assignments could not be segregated under designated and undesignated waters but, wherever possible, a distinction has been made between Canadian and U.S. pilots. This is important to show the effect on the workload up to 1968 (hence, on pilotage fees earned) of each group of pilots resulting from the difference in the working rules for holidays, the mandatory change-point for Canadian pilots at lock 7 and the different motivation of the two groups resulting from the basic disparity between their methods of remuneration and, in 1969, the effect of the *de facto* division of the District.

The table on p. 262 represents the aggregate workload of District No. 2 pilots (Lake Huron/Lake Michigan pilots excluded).

This table prompts the following remarks, *inter alia*:

- These statistics take into account movages and cancellations. Their aggregate number is small, mainly because a movege in any District No. 2 port is considered a partial trip for tariff purposes (p. 288). Hence, the movege statistics show only those in ports in undesignated waters, e.g., in 1969, the trip charge statistics contained such items as 155 trips Detroit/Detroit and 189 trips Toledo/Toledo; the 1968 report shows that the District pilots handled 41 movages aggregating 53.9 hrs. and that there were 12 cancellations altogether.
- The increase in the number of assignments from 1963 on is mainly due to the mandatory change-point at lock 7 for Canadian pilots. On the average, the U.S. pilots have fewer assignments but spend a greater number of hours on them (vide also year 1965 in Table, p. 265).
- The effects of the reorganization of the District in 1969 are clearly apparent. The number of assignments has greatly increased, despite the fact that the pilotage demand decreased substantially after 1966, and remains approximately the same as in 1968 (pp. 99–102). This

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WORKLOAD OF DISTRICT NO. 2 PILOTS

Year	District No. 2 Pilots*	Number of Assign- ments†	Hours on Assignment‡			
			Designated Waters	Undesignated Waters	Detentions and Delays	Total
1961	Total.....	3,537§	n/av.	n/av.	n/av.	n/av.
1962	Total.....	3,517	n/av.	n/av.	n/av.	190,858.9
1963	Canadian.....	2,763	36,379.4	21,841.3	35,486.6	93,707.3
	U.S.....	1,754	27,748.6	21,750.0	33,481.9	82,970.6
	Total.....	4,517	64,128.1	43,591.3	68,968.5	176,677.9
1964	Canadian.....	3,232	38,279.6	19,803.4	32,122.2	90,205.2
	U.S.....	2,485	33,850.4	25,622.7	39,712.9	99,186.0
	Total.....	5,717	72,130.0	45,426.1	71,835.1	189,391.2
	Port Weller.....	641	974.5	nil	19.9	994.4
	Total.....	6,358	73,104.5	45,426.1	71,855.0	190,385.6
1965	Canadian.....	3,862	45,617.1	24,793.5	39,410.6	109,821.2
	U.S.....	2,754	36,254.3	33,293.9	46,589.4	116,137.6
	Total.....	6,616	81,871.4	58,087.4	86,000.0	225,958.8
1966	Canadian.....	3,524	37,642.5	20,282.2	34,098.7	92,023.4
	U.S.....	2,261	31,471.0	22,155.7	36,594.8	90,221.5
	Total.....	5,785	69,113.5	42,437.9	70,693.5	182,244.9
1967	Canadian.....	3,143	30,664.4	17,650.0	27,474.1	75,788.5
	U.S.....	2,279	27,233.6	23,893.3	31,126.3	82,253.2
	Total.....	5,422	57,898.0	41,543.3	58,600.4	158,041.7
1968	Canadian.....	3,523	34,064.0	18,701.7	29,060.2	81,825.9
	U.S.....	2,134	22,819.5	16,028.9	27,542.6	66,391.0
	Total.....	5,657	56,883.5	34,730.6	56,602.8	148,216.9
1969	Canadian.....	4,604	30,447.4	12,579.5	3,156.0	46,182.9
	U.S.....	3,072	18,732.3	14,503.3	32,447.1	65,682.7
	Total.....	7,676	49,179.7	27,082.8	35,603.1	111,856.6
1970	Canadian.....	4,409	31,501.6	12,122.2	3,507.0	47,130.8
	U.S.....	2,830	18,636.1	12,121.1	21,816.4	52,573.6
	Total.....	7,239	50,137.7	24,243.3	25,323.4	99,704.4

*Not including Lake Huron/Lake Michigan pilots.

†Including movages and cancellations.

‡Including movages (cancellations were shown by number only).

§The figure of 3,728 assignments contained in Ex. 1542 erroneously includes 191 District No. 1 Lake Ontario assignments from Port Weller.

SOURCES: Exs. 1215, 1542 (1961-1962 number of assignments) and 1298 (1962 total hours on assignment).

is due to the establishment of a mandatory change-point at Port Colborne for U.S. pilots and at Detroit for Canadian pilots. Significantly, the aggregate number of trip charges has remained the same (vide Table, p. 264). The hours of detention of the Canadian pilots (except for the two allocated to the Canadian ports in the western sector) have been drastically reduced because these services are now limited to the Welland Canal sector and full transits of Lake Erie. This, however, still remains a problem for the U.S. pilots who take assignments in Lake Erie ports and U.S. ports in the western sector.

- The influence of lake pilots taking over lake assignments (other than Lake Erie) is apparent in the decrease in undesignated hours on assignment and in detention from 1966 on.

The detailed statistics available for 1967, 1968 and 1969 permit the preparation of the table on p. 264 representing the distribution of District No. 2 pilots' workload (lake pilots excluded), both from the point of view of number of trip charges and hours on duty. Generally, a trip assignment coincides with a trip charge (except when two pilots are jointly despatched) but, because of the unusual nature of District 2, a trip assignment in most cases counts for a number of trip charges, e.g., prior to 1969, a trip assignment from lock 7 to Port Huron counted for three trip charges: one designated charge for the transit from lock 7 to Port Colborne, one undesignated charge from Port Colborne to Southeast Shoal and one designated charge from there to Port Huron. This is the explanation of the larger aggregate number.

This table prompts the following considerations:

- Prior to 1969, assignments were given to all District No. 2 pilots, irrespective of their nationality, on the basis of a strict tour de rôle; the sector to which a pilot was assigned at a given moment depended completely upon the nature of the pilotage demand at the time and his place on the list at that station. This is why, prior to 1969, Canadian and U.S. pilots alike were called upon to render pilotage services in all five sectors. The difference in the number of assignments of the two groups is accounted for mainly by their difference in number (p. 181) and to a much lesser extent by the fact that some U.S. pilots may have elected not to be relieved at lock 7.
- However, the picture is quite different in 1969. It is apparent that there was a slight period of adjustment but the effect of the reorganization is obvious: District pilots are relieved of lake duties and Welland Canal assignments are no longer shared between Canadian and U.S. pilots. The apparent sharing in the western sector is explained by the fact that the Lake Erie transits which were

DISTRICT NO. 2 PILOTS*—DISTRIBUTION OF WORKLOAD

Sector of Assignment	District No. 2 Pilots	1967			1968			1969		
		Number of Trip Charges	Hours on Assignment		Number of Trip Charges	Hours on Assignment		Number of Trip Charges	Hours on Assignment	
			Trips	Detentions and Delays		Trips	Detentions and Delays		Trips	Detentions and Delays
Lake Ontario.....	Canadian.....	13	90.5	9.5	16	75.1	10.0	24	106.5	4.0
	U.S.....	43	353.4	60.8	11	18.3	nil	nil	nil	nil
	Total.....	56	443.9	70.3	27	93.4	10.0	24	106.5	4.0
Welland Canal.....	Canadian.....	2,774	16,996.5	535.0	3,058	19,465.1	870.8	4,477	24,740.5	850.9
	U.S.....	1,669	12,750.7	615.6	1,598	10,770.9	486.7	26	79.2	93.7
	Total.....	4,443	29,747.2	1,150.6	4,656	30,236.0	1,357.5	4,503	24,819.7	944.6
Lake Erie..... (undesignated waters)	Canadian.....	1,578	15,003.4	8,351.3	1,682	16,928.6	9,658.1	1,064	12,473.0	588.4
	U.S.....	1,612	16,000.4	7,841.9	1,352	13,620.5	9,075.2	1,649	14,477.0	173.1
	Total.....	3,190	31,003.8	16,193.2	3,034	30,549.1	18,733.3	2,713	26,950.0	761.5
Western Sector.....	Canadian.....	2,313	13,666.0	17,550.6	2,406	14,598.9	18,006.1	1,212	5,706.9	1,539.6
	U.S.....	2,581	14,482.9	19,527.9	2,159	12,048.6	17,237.1	3,798	18,653.1	19,435.9
	Total.....	4,894	28,148.9	37,078.5	4,565	26,647.5	35,243.2	5,010	24,360.0	20,975.5
Lakes Huron/ Michigan	Canadian.....	95	2,546.4	1,027.7	57	1,679.9	515.2	nil	nil	nil
	U.S.....	304	7,453.9	3,080.1	91	2,413.4	795.9	nil	nil	nil
	Total.....	399	10,000.3	4,107.8	148	4,093.3	1,311.1	nil	nil	nil
Grand Total.....		12,982	99,344.1	58,600.4	12,430	91,619.3	56,655.1	12,250	76,236.2	22,685.6

*Not including Lake Huron/Lake Michigan pilots.
SOURCE: Ex. 1215.

made the exclusive jurisdiction of the Welland Canal pilots include a designated trip charge in the western sector, i.e., for the part of the transit between Southeast Shoal and the Detroit change-point (and the port of Detroit in the case of an upbound trip), and to a much smaller extent by the work performed by the two Canadian pilots allocated to the Canadian ports in the western sector. Of the 26 assignments by U.S. pilots in the Welland Canal sector, 17 took place in Port Colborne since it was within the jurisdiction of the U.S. pilots for their Lake Erie assignments.

—Detentions and delays occur mainly in the western sector ports, as is clearly shown by the 1969 statistics. Substantial detentions and delays are still met but only in the western sector and during assignments carried out by U.S. pilots.

The yearly increases or decreases in the aggregate workload do not necessarily mean a similar fluctuation in the individual pilot's workload because the number of pilots was increased from time to time to meet increased demand (p. 181) and, when demand declined, vacancies caused by normal attrition were left unfilled. Instead of the "effective pilots" base, the average statistics were compiled by the same method as used for District No. 1 pilots (p. 231), i.e., by averaging the workload of the 80 per cent of the pilots who were the busiest. 1965 was chosen because it was the year when the aggregate workload was heaviest, 1968 to show the actual workload just before reorganization and 1969 to show the effect of reorganization on individual pilots.

AVERAGE WORKLOAD OF THE 80% OF THE PILOTS WHO WERE BUSIEST

Year	Number of Days in Navigation Season*	Average Number of Assignments per Pilot		Average Hours on Assignment					
		per Season	per Day	per Year					per Assignment
				designated waters	undesignated waters	detentions and delays	total	per Day	
1965	Can. 245	93.6	0.4	1,102.9	588.7	952.9	2,644.5	10.8	28.3
	U.S. 240	75.5	0.3	1,015.3	903.7	1,289.9	3,208.9	13.4	42.5
	Total	84.9	0.3	1,061.1	739.2	1,113.8	2,914.1	12.0	34.3
1968	Can. 242	79.1	0.3	774.5	441.2	684.8	1,900.5	7.9	24.0
	U.S. 242	71.0	0.3	767.3	544.3	933.3	2,245.0	9.3	31.6
	Total	75.8	0.3	771.6	483.4	786.7	2,041.7	8.4	26.9
1969	Can. 245	109.6	0.4	727.5	304.2	76.5	1,108.2	4.5	10.1
	U.S. 245	119.5	0.5	554.0	509.8	1,104.5	2,168.3	8.9	18.1
	Total	113.8	0.5	654.8	390.4	507.6	1,552.8	6.3	13.6

*Since the number of days in the 1965 navigation season differed between Canadian and U.S. pilots, the total was pro-rated at 242.6 for the "per day" figures.

SOURCES: Exs. 1215 and 1542.

This table prompts the following remarks:

- The effect of withdrawing District pilots from Lake Ontario and Lakes Huron and Michigan assignments becomes apparent when the 1965 and 1969 figures are compared: the aggregate number of assignments per season per pilot increased by 34.0 per cent but the aggregate number of hours on assignment per year decreased by 46.7 per cent.
- The combined effect of the non-compulsory changeover at lock 7 for U.S. pilots and their incentive to work longer hours is apparent from the 1965 statistics: they averaged fewer assignments but more aggregate hours on duty than the Canadian pilots.
- The effect of the 1969 reorganization is also obvious. The mandatory change-points at Port Colborne and in the stream off Detroit led to a larger number of shorter assignments. The allocation to Canadian pilots of the Welland Canal sector and Lake Erie transits resulted in the almost complete disappearance of their former detentions and delays. On the other hand, the U.S. pilots, who now have to meet practically all pilotage needs in western sector intermediate ports and Lake Erie ports, are detained and delayed more frequently.

Contrasting with District No. 1, a large number of assignments begin or end in District or Lake Erie ports. Since the available statistics (Ex. 1215) are based on trip charges, it is impossible to ascertain exactly the percentage of full transits between Port Weller and Port Huron but a fair picture appears when the statistics for each sector are compared. For example, in 1969:

- in the Welland Canal sector, 96 per cent of the trip charges are for trips between Port Weller and lock 7, and between lock 7 and Port Colborne;
- in Lake Erie undesignated waters, 57 per cent of the trip charges are for full transits between Port Colborne and Southeast Shoal, and the busiest port is Cleveland which accounts for 29 per cent of the partial trips in Lake Erie;
- in the western sector, 63 per cent of the trip charges are for trips between Southeast Shoal and Detroit, and between Detroit and Port Huron; the busiest ports are Detroit and Toledo but, because the statistics make no distinction between the Detroit change-point and the port of Detroit, it is not possible to ascertain the number of cases where Detroit was involved as a port.

The following table lists the assignments most often performed in 1969.

From—To	No of Trip Charges	Average Duration in Hours Excluding Detentions
Port Weller—Lock 7.....	2,157	6.1
Lock 7—Port Colborne.....	2,169	5.1
Port Colborne—Southeast Shoal.....	1,534	11.5
Port Colborne—Cleveland.....	315	12.5
Port Colborne—Buffalo.....	73	2.9
Southeast Shoal—Buffalo.....	45	15.2
Southeast Shoal—Cleveland.....	481	3.5
Cleveland—Buffalo.....	13	12.9
Southeast Shoal—Detroit.....	1,593	4.8
Southeast Shoal—Port Huron.....	46	10.0
Port Huron—Detroit.....	1,555	6.1
Southeast Shoal—Toledo.....	456	4.6
Port Huron—Toledo.....	29	9.9
Detroit—Toledo.....	285	4.7

These statistics give only a partial statement of the actual workload because they fail to take into account time taken by pilots to proceed to and from assignments or between stations when transferred. Except for distance, travelling between stations corresponds approximately to the situation in other Districts but travelling time to and from assignments is a special factor which has no counterpart anywhere on the Great Lakes (except in undesignated waters) or elsewhere in Canada. The cause is the number of in-District and Lake Erie ports, especially in the western sector, which must be serviced from distant pilot stations (p. 166). Unfortunately, this significant addition to the workload is totally ignored in the available statistics. The *de facto* division of the District in 1969 practically eliminated this problem for the Welland Canal pilots and the establishment of a pilot station at Detroit reduced travelling time as well as detentions and delays.

(4) LAKE HURON/LAKE MICHIGAN SECTOR

(a) *Operational Procedures*

The development of operational procedures in the Lake Huron/Lake Michigan sector followed the same pattern as on Lake Ontario but at a later

date and not as yet to the same extent. A group of lake pilots for this area was first unofficially formed in 1964 as trainees for District No. 2 (this accounts for the occasional trip assignments some of these lake pilots were still performing in that District as late as 1967). District 2 pilots were gradually replaced for Lake Huron and Lake Michigan assignments and have been completely relieved of this function since 1969. The same is not true, however, of District No. 3 pilots who continue to provide services in that sector under the Joint Working Rules (p. 172); indeed, their participation increased substantially in 1969, despite the fact that the Working Rules give the lake pilots precedence over District pilots, which merely indicates that the number of the former is insufficient to meet the demand. If pilotage in the open waters of the Lakes is to continue, this situation should be corrected so that District pilots are assigned only to the designated waters for which they are specially trained.

As on Lake Ontario, pilotage operations in the Lake Huron/Lake Michigan sector are the joint responsibility of the administrative authorities responsible for the nearest District boarding stations. They have devised Joint Working Rules to coordinate their operations—the latest version is dated October 25, 1963 (p. 171). To reduce detention and extensive travelling as much as possible at the important Lake Michigan ports, the two administrative authorities established jointly a satellite pilotage station at Chicago.

The Interpool Working Rules contain very few provisions. They have the same operational features as those adopted for Lake Ontario. Lake assignments are normally to be performed by lake pilots and District pilots are assigned only when no other pilots are available at their District boarding station for either a lake or a return assignment. A District pilot is to be returned to his station if there is no assignment expected for him within the next 12 hours at the station where he reported at the end of a lake assignment. In conformity with the nature of open water pilotage, there is no automatic rest period between assignments but, if a pilot feels tired, he will be granted 12 hours' rest upon request when he arrives. A separate list of lake pilots is kept by each of the three stations and they are assigned in accordance with a strict *tour de rôle*.

The comments (pp. 241–2) on the basic differences between pilotage duties in designated and undesignated waters apply here and the situation regarding pre-season and post-season pilotage is the same as in Districts 1 and 2 (pp. 224–5 and 241).

(b) *Workload*

The following table shows the respective share of the Lake Huron/Lake Michigan pilots' workload. They have not been further segregated by nationality—this information would be meaningless in the local context since the

despatching rules contain no provisions of exception on this basis. The table is based on statistics covering trip and detention charges because the assignment statistics do not segregate lake assignments in this sector from other lake assignments performed elsewhere by Districts 2 and 3 pilots.

DISTRIBUTION OF LAKE HURON/LAKE MICHIGAN
WORKLOAD ASSIGNMENTS*

Year	Pilots on Assignment	Number of Trip Charges	Hours on Assignment		
			Pilotage	Detention	Total Hours
1967	District No. 2.....	399	10,086.5	4,107.8	14,194.3
	Lake Huron/Lake Michigan..	771	16,984.2	7,496.7	24,480.9
	District No. 3.....	577	12,063.3	n/av.	n/av.
	Total.....	1,747	39,134.0	n/av.	n/av.
1968	District No. 2.....	148	4,116.7	1,311.1	5,427.8
	Lake Huron/Lake Michigan..	1,014	21,907.7	4,750.4	26,658.1
	District No. 3.....	597	13,401.1	2,890.1	16,291.2
	Total.....	1,759	39,425.5	8,951.6	48,377.1
1969	District No. 2.....	nil	nil	nil	nil
	Lake Huron/Lake Michigan..	784	23,110.7	3,550.9	26,661.6
	District No. 3.....	795	17,347.5	3,211.8	20,559.3
	Total.....	1,579	40,458.2	6,762.7	47,220.9

*On the basis of trip and detention charges.

SOURCE: Ex. 1215.

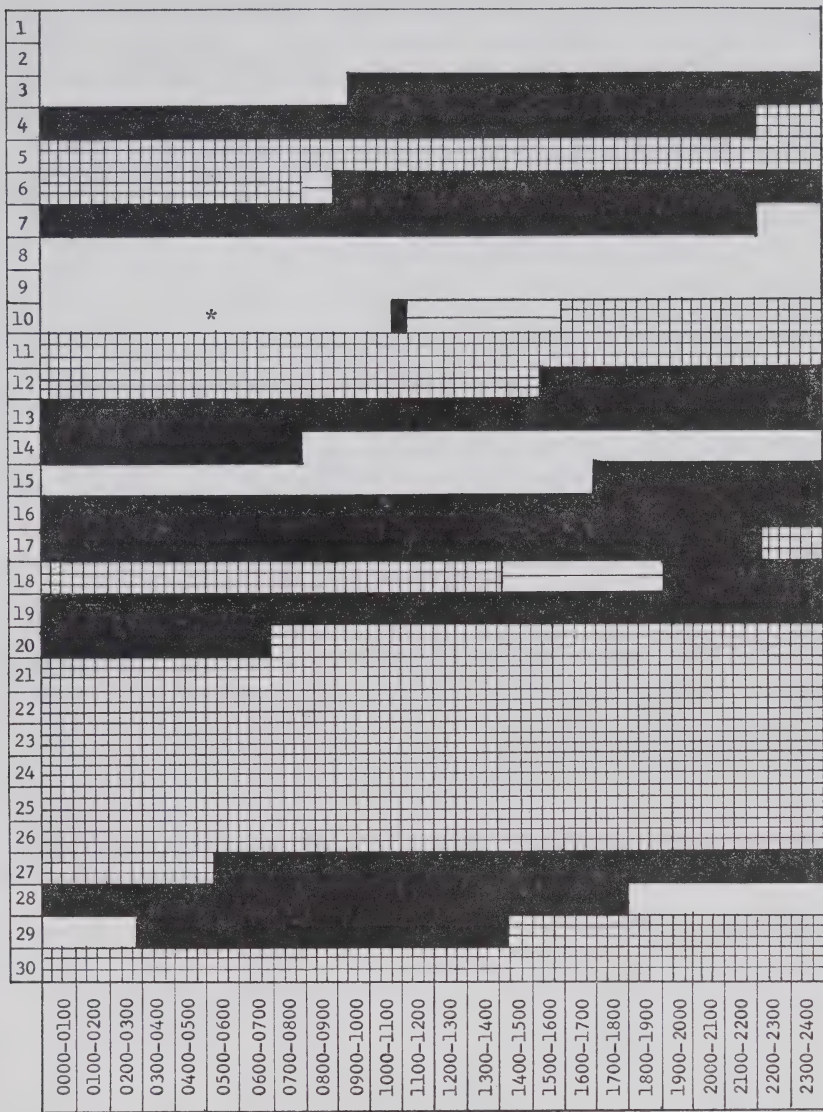
The number of assignments per lake pilot has increased substantially but the aggregate workload has remained practically the same. This is mostly due to withdrawing from lake duties the District No. 2 pilots who were given precedence for return trips and who could not be given any assignment from an outstation or outport other than a return assignment to the District pilot station. Hence, the lake pilots were left with assignments to other outports where detention and delays occurred. The occasional trip by lake pilots into District 2 as pilots-in-training has now ceased. Their daily average workload appears quite heavy compared with District pilots and the average duration of assignments very extensive; in fact, these figures are not comparable because of the basic difference in the nature of the duties involved (p. 260).

The graph on p. 271, which shows the workload of the busiest pilot, Herman S. Burch, during September 1964, the least busy month, is a typical example of the employment of the time of the Lake Huron/Lake Michigan pilots. His aggregate time on duty—549.4 hours—consisted of 252.3 hrs. on board in undesignated waters and 297.1 hrs. detention. The statistical information furnished (Ex. 1303) does not give the complete details of each assignment. A round trip from the despatching station to an outport and return is counted as one trip assignment and the time spent at an outport by a pilot at a ship's request is recorded as detention and charged as such. The available data do not identify outports and show only the aggregate time on board on pilotage duties. Therefore, for this graph, time on pilotage duties has been arbitrarily divided into one-half for outgoing trips and one-half for return trips.

The details and nature of the duty time of pilot Burch in September 1964 are:

- At the beginning of the month, counting from 0001/September 1, he waited for an assignment at Port Huron two days and 9.4 hours.
- On September 3, a trip from Port Huron to Chicago took 36.6 hours and he was detained with the ship (presumably at Chicago) 34 hours.
- On September 6, he waited one hour at Chicago before being given a fresh assignment. The return trip to Port Huron took 37 hours.
- He then waited at Port Huron two days and 10 hours before being finally sent by land or air to Chicago for a moveage.
- After a few hours at Chicago, he was given a return assignment to Port Huron—this took 88 hours: 40.7 pilotage duties and 47.3 detention.
- After 38 hours at Port Huron, he was given an assignment to Detour—this took 69.1 hours: 53.1 pilotage duties and 16 detention.
- After waiting five hours at Detour, he was given an extended trip which eventually returned him to Port Huron (no doubt involving an outport where he was extensively detained); the assignment lasted approximately ten days: aggregate 72.7 hours pilotage duties and detention six days and 22.2 hours.
- At Port Huron, he waited 8.9 hours for a trip to Detour—this was not terminated at midnight September 30 and had by then lasted 45.1 hours: 11.5 pilotage duties and 33.6 detention.

SEPTEMBER 1964 WORKLOAD OF LAKE HURON/LAKE MICHIGAN U.S. PILOT HERMAN S. BURCH




LEGEND


 Piloting

 Detention

Waiting between Assignments:

 Port Huron/Sarnia*

 Other*

 * Including travel time

Study of Pilotage in Great Lakes System

The following table lists the lake assignments most often performed in 1969.

From—To	No. of Trip Charges	Average Duration in Hours Excluding Detentions
Port Huron—Chicago.....	492	39
Port Huron—Milwaukee.....	210	33
Port Huron—Detour.....	221	13.7
Port Huron—Bay City.....	61	12.2
Port Huron—Green Bay.....	30	29
Detour—Chicago.....	56	25
Detour—Milwaukee.....	33	19.2
Detour—Green Bay.....	14	16.2
Chicago—Bay City.....	20	39.8
Chicago—Green Bay.....	19	23.1
Chicago—Milwaukee.....	205	8.2

The next table shows the average workload of lake pilots calculated in the same way as for District No. 1 pilots (vide p. 231) for the same years.

AVERAGE WORKLOAD OF THE 80% OF THE PILOTS WHO WERE BUSIEST

Year	Number of Days in Navigation Season*	Average Number of Assignments per Pilot		Average Hours on Assignment					
		per Season	per Day	per Year				per Day	per Assign- ment
				desig- nated waters	undesig- nated waters	detentions and delays	total		
1965	242.6	59.1	0.2	78.7	1,487.9	976.5	2,543.1	10.5	43.0
1968	242	94.5	0.4	1.4	1,753.3	393.1	2,147.8	8.9	22.7
1969	241	84.0	0.3	nil	2,270.0	371.7	2,641.7	11.0	31.4

SOURCES: EXS. 1215 and 1542*.

*Since the number of days in the navigation season for 1965 differed between Canadian and U.S. pilots, the figure was pro-rated.

Here again, the foregoing workload statistics are quite misleading in that they do not take into account either the considerable travelling time involved for District pilots when obliged to return from an outstation or an outport to their District station, and for pilots of all categories when they have to proceed between an outport and a pilot station to join a ship or after the completion of an assignment, or the travelling time involved when transferred from one station to another.

(5) DISTRICT NO. 3 AND LAKE SUPERIOR

Operations in District No. 3 are still conducted in accordance with the original organizational concept, i.e., the pilots have exclusive jurisdiction over a sector of designated waters plus added jurisdiction over adjacent undesignated waters which they share with the pilots of any contiguous District. Under these arrangements, District 3 pilots have exclusive jurisdiction over both the designated waters extending from Detour to Gros Cap as well as Lake Superior and its ports since there is no other District contiguous to Lake Superior. According to the same original concept, they also participate in pilotage on Lakes Huron and Michigan, formerly with District 2 pilots, then with Lake Huron/Lake Michigan pilots after their appointment, and exclusively with the latter since 1969. Surprisingly, despite the fact that Lake Huron/Lake Michigan pilots have precedence over District 3 pilots for assignments on these Lakes, both groups share the workload almost equally because of the inadequate number of lake pilots.

District 3 pilots are Sailing Masters rather than pilots in the Canadian meaning of the term. They have not experienced the same operational evolution that took place in the other Districts for a number of significant reasons:

- District transits are relatively short because the distance from Point Iroquois light to Point Detour light is only 57 miles (p. 85);
- there are no serious navigational problems;
- congestion is unlikely since only one lockage is involved and there are four parallel U.S. locks and one smaller Canadian lock to accommodate vessels;
- the comparatively light demand for pilotage which permits the District pilots, despite their small number, to attend to their other extended undesignated waters pilotage duties without any adverse effect on their availability for District duties.

In these exceptional conditions no serious problem has developed and the original organizational concept was retained.

Boarding areas have been established at each end of the District: in Lake Huron, off Detour Reef light at the entrance to Detour Passage, and at the lower end of Lake Superior, between Gros Cap Reefs light and buoy 45 just inside the imaginary line running from Point Iroquois light to Jackson Island. Pilot vessel service at each station is supplied by independent contractors under arrangements made by the U.S. Pilots' Association responsible for the pool (p. 173).

The two main ports in Lake Superior are Duluth-Superior and Thunder Bay. There are no specific boarding areas established and pilots embark and disembark at berths, or off the harbour in open water near the fairway buoy, or in the anchorage area. In both harbours, pilot vessel service is available from local operators. Until the 1970 tariff amendment, the cost of pilot vessel service in undesignated waters formed part of the pilots' reasonable travelling expenses which vessels were called upon to pay in addition to pilotage fees. Since 1970, pilotage rates have been all inclusive.

(a) *Despatching Operations*

Because that part of the Great Lakes system lacks a Marine Information Service network, pilotage operations are planned on the basis of the ETA's which ships are required to give plus other information transmitted by pilots and exchanged between pilotage offices.

The provision of services in District 3 and on Lake Superior is governed by the "Pool Working Rules and Dispatching Procedures Great Lakes Pilotage District No. 3" as amended March 1, 1965 (Ex. 1090(b)). Their main operational features are summed up on pp. 174-5.

On account of the distance involved, to save travelling time and cost and to assure the local availability of pilots the combined area of District No. 3 and Lake Superior is dealt with for operational purposes as if it consisted of three District-like areas—the St. Marys River, the port of Duluth-Superior, and the port of Thunder Bay—separated from one another by the open waters of Lake Superior. District 3 pilots are divided into three groups of area pilots and one group of general assignment pilots. The despatching rules combine the features of District and undesignated waters operations; area assignments are, as a rule, to be attended to by the pilots of the area concerned unless a shortage has developed; lake assignments are performed by general assignment pilots, but an area pilot has precedence for a lake assignment which returns him to his area; an area pilot is returned overland if a return lake assignment is not expected shortly.

Combined operations in District 3 and Lake Superior are conducted from three pilot stations: the Duluth headquarters and two satellite stations situated at Sault Ste. Marie and Thunder Bay. The activities of District 3 pilots in Lakes Huron and Michigan come under the jurisdiction of the

Sault Ste. Marie pilot station, Port Huron District 2 pilot station and the common pilot station at Chicago, and are governed by the "Joint (Interpool) Working Rules Great Lakes Pilotage Districts Nos. 2 and 3" (pp. 171-2). Information is exchanged between all offices twice daily, thus enabling the Duluth headquarters to keep close track of its pilots. Billing and collection of pilotage fees are carried out from Duluth.

At Sault Ste. Marie, three assignment lists are maintained: river assignments, translake assignments and local movages (including partial trips between Sault Ste. Marie and Gros Cap). A pilot who has been unavailable without authorization is placed upon his return at the top of the translake list and at the bottom of the two others. At Duluth-Superior and Thunder Bay, two lists are maintained: one for port pilotage and one for translake assignments.

A general assignment pilot goes on the list at whatever point he disembarks and is required to perform all services rendered by pilots in the area where he is then stationed. When overland transfers are required, the general assignment pilots first on the list are to be transferred before local pilots.

At the opening of the navigation season, area pilots may be sent to Port Huron in order to assist the initial surge of traffic into Lake Superior, and general assignment pilots to assist as lake pilots for movements into Lakes Huron and Michigan.

The normal minimum assignment notice is to be given three hours before ordered time, or before the hour of departure of the necessary transportation when travel is involved. A pilot reporting in upon completion of an assignment is entitled to a 10-hour rest period, provided he requests it; if so, he is not placed on the area or harbour list but holds his position on the translake list since he will have ample opportunity to rest while carrying out a translake assignment.

(b) *Workload*

The workload of District No. 3 pilots has all the characteristics of the workload of lake pilots because lake assignments occupy the majority of their time.

The following table shows the aggregate workload of District 3 pilots (excluding Lake Huron/Lake Michigan pilots attached to District 3 in 1970). The available statistics did not permit segregating the number of assignments into designated and undesignated waters, and even less making separate lists for Lake Huron/Lake Michigan and Lake Superior. The term *Assignment* in this table includes movages (which are numerous, e.g., 749 in 1969, aggregating 1404.5 hours) and cancellations (which are negligible,

e.g., 30 in 1969). The information was not segregated on the basis of Canadian and U.S. pilots because such a distinction is meaningless in the context of District 3.

WORKLOAD OF DISTRICT NO. 3 PILOTS*

Year	Number of Assignments†	Hours on Assignment‡			Total
		Designated Waters	Undesignated Waters	Detentions and Delays	
1963	1,707	5,276.9	20,494.2	10,100.9	35,872.0
1964	2,177	8,607.4	22,694.9	7,906.3	39,208.6
1965	2,349	8,654.7	22,567.4	4,919.0	36,141.1
1966	2,275	6,458.2	25,065.6	5,611.1	37,134.9
1967	1,739	5,219.3	24,303.0	6,138.7	35,661.0
1968	2,070	3,911.8	21,514.0	3,757.4	29,183.2
1969	2,290	3,092.2	25,342.2	4,041.8	32,476.2
1970	1,868	3,719.9	22,460.9	3,426.5	29,607.3

*Canada and U.S. combined, not including Lake Huron/Lake Michigan pilots.

†Including movages and cancellations.

‡Including movages (cancellations are in number only).

SOURCE: EX. 1215.

Falling pilotage traffic (pp. 97 and ff.) has resulted in a decrease in the in-District workload but, on the other hand, the undesignated waters workload has remained generally stable except for the 1966 peak. The lessened demand was offset by the diminishing number of "B" certificate-holders (pp. 140-2). The increase in the undesignated waters workload in 1969 should be attributed to the withdrawal of District 2 pilots from the Lake Huron/Lake Michigan sector (vide table p. 264).

The detailed statistics available for 1967, 1968 and 1969 have permitted the preparation (as for other Districts and areas) of a table showing the distribution of the District 3 pilots' workload from the point of view of both the number of trip charges and hours of duty. The trip charge statistics do not include movages or cancellations. It is surprising to find that Lake Huron/Lake Michigan assignments have always accounted for a substantial part of the workload of these pilots: e.g., in 1969, 48.3 per cent of the total trip charges and 60.8 per cent of total hours on pilotage assignments. It should be noted that that year they had to absorb the part of the Lake Huron/Lake Michigan workload formerly handled by District 2 pilots because the number of lake pilots was not increased proportionately. Great care should be taken when comparing the workload statistics of other Districts or areas since the characteristics and nature of workloads are not the same.

DISTRICT NO. 3 PILOTS*—DISTRIBUTION OF WORKLOAD

Year	Sector of Assignment	Number of Trip Charges	Hours on Assignment	
			Trip Assignments	Detentions and Delays
1967	Lake Huron/Lake Michigan.....	578	11,870.9	n/av.
	District No. 3.....	770	5,217.0	n/av.
	Lake Superior.....	508	11,229.1	n/av.
	Total.....	1,856	28,317.0	n/av.
1968	Lake Huron/Lake Michigan.....	597	13,399.9	2,890.1
	District No. 3.....	607	3,911.8	284.6
	Lake Superior.....	320	6,641.8	582.7
	Total.....	1,524	23,953.5	3,757.4
1969	Lake Huron/Lake Michigan.....	795	16,449.7	3,211.8
	District No. 3.....	504	3,092.7	215.8
	Lake Superior.....	346	7,492.3	791.6
	Total.....	1,645	27,034.7	4,219.2

*Exclusive of Lake Huron/Lake Michigan pilots.

SOURCE: EX. 1215.

The average statistics arrived at by the same method as used for District No. 1 (vide p. 231) and for the same years are as follows:

AVERAGE WORKLOAD OF THE 80% OF THE PILOTS WHO WERE BUSIEST

Year	Number of Days in Navigation Season*	Average Number of Assignments per Pilot		Average Hours on Assignment					
		per Season	per Day	per Year				per Day	per Assign- ment
				desig- nated waters	undesig- nated waters	detentions and delays	total		
1965	233.7	131.7	0.6	490.8	1,245.6	269.1	2,005.5	8.6	15.2
1968	234	103.9	0.4	273.9	1,372.2	226.7	1,872.8	8.0	18.0
1969	241	117.9	0.5	195.0	1,544.1	226.7	1,965.8	8.2	16.7

SOURCES: EXS. 1215 and 1542*.

*Since the number of days in the 1965 navigation season differed between Canadian and U.S. pilots, the total was pro-rated at 242.6 for the "per day" figures.

The individual workload in number of assignments has decreased somewhat since 1965, despite the fact that the number of District No. 3 pilots has decreased by two (p. 183). The total number of hours on duty has remained the same but the nature of pilotage duty has changed substantially: there is a 60.3 per cent decrease in time spent in designated waters but a corresponding increase in time spent in Lake Huron/Lake Michigan where pilotage duties are of the same nature as on Lake Ontario (pp. 238 and ff.) but take longer because of the Lakes' extent.

Very few ocean-going ships call at District 3 intermediate ports and almost all assignments are full District transits. This is well illustrated by the breakdown of the 1969 trip assignments figures (Ex. 1215):

	No.	%
Full trips (between Detour and Gros Cap).....	457	90.7
Partial trips (Detour to Sault Ste. Marie).....	31	6.2
Gros Cap to Sault Ste. Marie.....	15	3.0
Others.....	1	0.1
	504	100.0

For a comparison of traffic in District No. 1, see the table on p. 230.

The average duration of a full transit was 6.3 hours; a partial trip between Detour and Sault Ste. Marie averaged 6.4 hours since it included berthing or unberthing; the 14 partial trips between Gros Cap and Sault Ste. Marie (Ontario) averaged 1.9 hours; the one partial trip between Gros Cap and Sault Ste. Marie (Michigan) took 5.8 hours.

In 1969, there were 366 trip charges for Lake Superior assignments. The lake assignments most often performed, their aggregate number and average duration for that year were:

Gros Cap-Duluth	250	24.3 hours
Gros Cap-Thunder Bay	88	17.1 hours
Duluth-Thunder Bay	28	14.2 hours

(c) *Problem of Equitable Sharing of Workload*

At the time of the Commission's hearings, complaints were made that the operational procedure in force did not produce equitable sharing of the pilots' workload either in number of assignments or in aggregate time. Because of their official method of remuneration the result was a substantial difference in their earnings and, therefore, it was charged that the system was not in conformity with the governing principle that all pilots should have an equal opportunity to share workload and earnings.

COMMENTS

It is possible that the procedure could be improved upon but the complaint as stated is ill-founded. Those who complained failed to recognize that pilotage is a service to ships and the first requirement is to meet their needs, whenever and wherever they may arise, at the least cost. They also failed to take into consideration that no two pilotage assignments are exactly alike—this is particularly true in District No. 3.

If the basic principle governing the definition of the pilots' range of operations had been observed, i.e., if they had been restricted to confined waters so that the extent of their operational territory corresponded to a normal turn of duty (Part I, pp. 477 and 479), the time problem would still have remained but in reduced form. In fact, even after the *de facto* division of District 2, this problem was quite unresolved in the western sector because the large number of partial trips and the numerous factors which make similar assignments vary so widely in duration prevent an equal distribution of the workload, either in number of assignments or in aggregate time on duty, and even less in both at the same time. Such a goal is impossible to attain in the pilotage service because the authority in charge does not control the governing factors. It may try to correct some inequalities through the adoption of working rules especially designed to meet local conditions but these will meet only partial success, e.g., in the St. Lawrence River Pilotage Districts and Great Lakes District No. 1, the administrative authorities, at the request of the pilots, have accepted the equalization of trips system. Because most assignments in these Districts are similar (full transits), the highly complicated despatching procedure associated with the system achieves some equality in the number of assignments performed each year by each pilot but there is a wide variation in the distribution of the workload from the point of view of time on duty (pp. 275 and ff.) (for the Commission's views on the merit of such a system, vide Part IV, pp. 462–3). Obviously, the equalization of trips principle can not be applied in the western sector of District 2 because the majority of assignments there are so different.

As proved by experience, the required system is one which will ensure equal treatment for all pilots under working rules designed to meet the pilotage demand efficiently throughout the whole area of operations. Some variation in the number or duration of assignments is unavoidable. Substantial differences which result when some pilots are allocated to a particular place or area should be adjusted by controlling the number of pilots so detached or effecting a rotation, as provided for instance in District No. 2 Working Rules for pilotage duties at Port Weller (p. 251).

Where pilots are not salaried employees, the root of the problem lies in the erroneous basis of remunerating them, i.e., work done rather than availability as if they were free entrepreneurs, although they are not. This has been

clearly realized by the pilots themselves who generally have pooled their earnings so that all pilots with equal availability receive an equal share irrespective of their individual number of assignments or aggregate pilotage time. When this is done, there is no problem, provided all the pilots in the group are parties to the pooling partnership, e.g., the Canadian and U.S. Lake Ontario pilots. Difficulties are bound to arise when all the pilots are not governed by the same arrangements for pooling.

(d) Complaint by District No. 3 Administrative Authority Concerning Lack of Direct Communication with the Canadian Authority

One of the recommendations made to this Commission by the Lake Superior Pilots Association was that, as administrative authority of District No. 3, they be given more right to decision at local level. At the Commission's hearings, they explained that they have particularly in mind a direct channel of communication with the Canadian Department of Transport, since they were operating a service extending over Canadian as well as U.S. territory and a few Canadian pilots who are employees of the Department of Transport came under their operational and administrative jurisdiction.

At that time, the U.S. Great Lakes Pilotage Administrator had informed the Association that all communications between them and the Department of Transport regarding the operation of the authorized pool in District 3 should be directed through the office of the Administrator. According to the Association, these instructions created a handicap and made it impossible to work out common problems adequately. For instance, the Association felt that the problem of equal participation of Canadian pilots in all phases of pilotage operations could have been easily settled by direct discussion with the Department of Transport.

At that time, the situation arose only in District 3 because it was the only District where the Department of Transport was not represented at the District level (there is no Canadian pilotage office in District 3). A similar situation is now likely to occur in all Districts and sectors since the principle of dual local administrative authorities has been completely abandoned.

It is considered that a local administrative authority should have full power to deal directly with anyone concerning matters coming under its exclusive jurisdiction, irrespective of the nationality of the parties concerned or of any other functions they perform. In this case, the Canadian Department of Transport, *vis-à-vis* the Pilots' Association, was not being approached as one of the two Central Authorities of the Great Lakes pilotage organization but merely as an organization directly involved in local administration. To use the Central Authority simply as a go-between, appears to be a cumbersome and inadequate procedure. If the Canadian Department of

Transport felt that it was unjustly dealt with by the U.S. Pilots' Association, then, like any other party who believes it has been treated unfairly, it could have discussed the matter with the Administrator and, if necessary, with the Secretary of Transportation. However, it should be noted that under U.S. legislation neither could interfere with the administrative decision taken by the Association, provided such decision was within its jurisdiction and was not an illegal abuse of power (the U.S. Central Administration has no direct power over actual operations). The Department of Transport's intervention with the U.S. Central Authority might then have resulted in the Administrator amending the regulations governing the administration and operation of the U.S. pool concerned.

6. FINANCIAL ADMINISTRATION, RATES AND PILOTS' REMUNERATION

PREAMBLE

The basic principles governing the financing of the joint pilotage service in the Great Lakes system are:

- the service is to be financially self-supporting;
- the operating expenses of the central administrations are borne by each Government.

Each pilotage office (pilots' pool) formerly was an independent unit from the accounting as well as the operational point of view. It financed its operations through deductions at source from the fees earned by the pilots from assignments originating from that office, and billing and collecting were the responsibility of the assigning pilotage office. This procedure proved costly and unnecessarily complicated and was modified when Districts Nos. 1 and 2 were reorganized.

(1) COST TO GOVERNMENTS

Any pilotage expenses not covered by pilotage revenues but by the Government concerned are met by the Great Lakes Pilotage Administration of each country (p. 151), i.e., in the United States, the Great Lakes Pilotage Administration, an administrative entity formerly of the Department of Commerce, now of the Department of Transportation, through the U.S. Coast Guard; in Canada, the section of the Department of Transport responsible for implementing Part VI C.S.A. which operated the Port Weller/Sarnia service prior to the creation of District No. 2 and which, with the Minister, became the Canadian Great Lakes Pilotage Administration under Part VIA C.S.A. The costs of these Pilotage Administrations are borne by the respective Governments, except for the negligible contribution by

candidates for pilots' registration certificates and ships' officers' certificates of qualification (p. 24).

The Commission has no information on the amount paid by the United States Government for pilotage on the Great Lakes.

The pilotage expenses incurred by the Canadian Department of Transport are shown in *Public Accounts* as an aggregate. Since the function of the Canadian Great Lakes Pilotage Administration has not been entrusted to a section of the Department of Transport especially created for that purpose but is exercised as an added function by its Pilotage Section, there is no means of ascertaining accurately the share of the Department's expenditures attributable to its function as Canadian Pilotage Authority under Part VIA C.S.A., or determining what part of the cost of the Ottawa headquarters can be attributed to the Pilotage Districts created under Part VI C.S.A. Under these circumstances, it was necessary to adopt an arbitrary method of apportioning the cost of the Ottawa pilotage headquarters between the various Pilotage Districts and Great Lakes Districts. The Commission's consultant accountant used for this basis the incidence of the total cost of the service to shipping in each such District related to the aggregate total cost for Canada (Ex. 1295 and Part I, Schedules, pp. 636-638). The result of this apportionment 1961-1969 is as follows:

Year	Total HQ Cost All Districts	Great Lakes System Share
1961.....	\$ 84,000	\$24,994
1962.....	122,000	26,193
1963.....	114,000	25,285
1964.....	130,000	28,574
1965.....	148,000	34,617
1966.....	150,000	33,000
1967.....	211,000	46,420
1968.....	241,000*	53,020
1969.....	264,000*	58,080

*Includes expenditures for the Pilotage Task Force.

The Canadian Government, in contrast to the United States Government, also has financial commitments at the operational level, not because it has assumed the administrative function of the pilotage offices which were made a Canadian responsibility (pp. 67-8) (these remain financially self-supporting), but because of the method of remunerating the Canadian registered pilots in Districts 2 and 3 and the Lake Huron/Lake Michigan sector.

In accordance with the governing principle that each pilotage office should be financially self-supporting, all expenses incurred by the Canadian Government in manning and operating the Canadian pilot stations in Districts 1 and 2, i.e., Cornwall and Port Weller, are paid out of the pilotage revenues earned by the pilots (irrespective of their nationality) who use these offices. The expenses of the U.S. pilotage offices (pilots' pools) are met in the same way. Hence, the Canadian Government bears no part of these expenses. Its financial involvement consists in the difference between what would have been the remuneration of the Canadian pilots registered in Districts 2 and 3 and in the Lake Huron/Lake Michigan sector if they had been paid the net revenue earned by their services and the salary paid them by the Government as prevailing rate employees. This aggregate difference means either a surplus or a deficit for the Government. The Department of Transport's financial report (Ex. 1295) does not segregate the figures relating to the Lake Huron/Lake Michigan pilots which were included in District 2 figures; and since 1967-68 no longer shows segregation by District. The table on p. 284 shows the details and extent of such financial involvement for the fiscal years 1960-61 to 1969-70 inclusive.

(2) COST TO SHIPPING

Cost to shipping is the aggregate amount vessels pay for pilotage, i.e., pilotage fees properly speaking (the price fixed in legislation for the various types of pilotage services), indemnity charges such as for detention, delay and cancellation, accessory expenses such as land transportation, and any other payments expected officially or unofficially from vessels (or some of them) for services, e.g., the unofficial remuneration for pilot apprentices paid by vessels of members of the Shipping Federation of Canada in the St. Lawrence River Pilotage Districts (Part IV, p. 237), or the hire price of pilot vessels where such service is privately organized and has no official status (Part IV, pp. 423-6 and 743-5). In the Great Lakes system, vessels are required to pay only charges listed in the tariff.

(a) *Rate Structure*

According to the agreement between Canada and the United States, the tariff in the Great Lakes Pilotage Regulations of each country must be the same. Rate modifications are preceded by agreements between both Governments and those are ratified by an amendment to the Memorandum of Arrangements.

When the joint tariff was first established in 1961, ships' dimensions were not a factor in computing rates, presumably on account of the basic differences between the U.S. system of measuring ships' tonnage and the British system which is in use in Canada (Part I, p. 167). It is worth noting

COST TO GOVERNMENT

Revenue and Expenditures	1960-1961	1961-1962	1962-1963	1963-1964	1964-1965	1965-1966	1966-1967	1967-1968	1968-1969	1969-1970
<i>District No. 2</i>										
Pilots' share of net revenue..	\$536,000	\$649,000	\$495,000	\$482,000	\$529,000	\$729,000	\$701,000	\$641,000	\$1,040,000	\$907,000
Less pilots' expenditures:										
Salaries and allowances...	511,000	502,000	384,000	394,000	407,000	608,000	705,000	810,000	1,052,000	993,000
Fringe benefits.....	63,000	76,000	59,000	64,000	65,000	89,000	116,000	98,000	134,000	199,000
Travel and other.....	3,000	4,000	52,000	36,000	36,000	49,000	51,000	61,000	13,000	10,000
	577,000	582,000	495,000	494,000	508,000	746,000	872,000	969,000	1,199,000	1,202,000
Surplus or (deficit).....	(41,000)	67,000	nil	(12,000)	21,000	(17,000)	(171,000)	(328,000)	(159,000)	(295,000)
<i>District No. 3</i>										
Total revenue accruing to pilots.....			\$49,000	\$35,000	\$58,000	\$54,000	\$57,000	Included in District No. 2 above.		
Less pilots' expenditures:										
Salaries and allowances.....			32,000	31,000	36,000	38,000	53,000			
Fringe benefits.....			5,000	5,000	5,000	5,000	7,000			
Travel and other.....			2,000	2,000	4,000	4,000	5,000			
			39,000	38,000	45,000	47,000	65,000			
Surplus or (deficit).....			10,000	(3,000)	13,000	7,000	(8,000)			

SOURCE: Ex. 1295.

that prior to 1961 when pilotage in the Kingston District was solely under Canadian control the rate structure was based on ships' tonnage and draught (p. 50).² In designated waters, distance run became the only governing factor and flat rates were established according to the type of trip. In undesignated waters, where most trips were long and varied greatly both in length and type, the time factor was used instead and a flat rate was set for a given period of time.

The structure was not satisfactory because it discriminated against smaller vessels (Part I, p. 157). The Canadian and U.S. Governments indicated their intention to amend the rate structure to allow for ships' characteristics, vide this excerpt from the preamble to the 1967 Memorandum of Arrangements (Ex. 1400):

"In the past six years, with the introduction of newer and larger ships with more sophisticated navigational equipment and altered traffic patterns, pilotage requirements in those waters governed by the agreement have changed considerably. As a result, the present pilotage system and its rate structure, designed to meet the requirements of 1961, do not meet the requirements of today.

Accordingly, the United States and Canada have initiated an overall review of the present pilotage system and its rate structure on the basis of which a new system and structure can be established before the navigational season of 1968."

It was, however, only in 1970 that a system agreeable to both countries could be devised. The 1969 version of the Memorandum contains the following progress report:

"...The present rate structure does not take into consideration the size of a vessel or, in some cases the length of the voyage, and should be replaced with a new structure that more effectively measures pilot workload. The Minister and Secretary have agreed that the new rate structure is to be developed and made effective prior to the 1970 shipping season."

The two Governments finally agreed on a new formula which became effective July 7, 1970 (p. 25). This formula (length \times breadth \times moulded depth, divided by 10,000) is applied to each ship to obtain a "pilotage unit" number which, when utilized with a corresponding "weighting factor" will class a ship in one of four categories permitting a spread of flat rates according to her dimensions. Pilotage unit classifications and their corresponding weighting factors are:

Range of Pilotage Units	Weighting Factors
0- 99 units.....	.85
100-129 units.....	1.00
130-159 units.....	1.15
160 and over.....	1.30

²In the Port Weller/Sarnia sector, however, the Shipping Federation of Canada had established the flat rate system. For instance, the 1958 tariff (Ex. 1240) provided a flat rate of \$200 for the full transit plus a \$12.50 charge each time a pilot vessel was used.

The basic or flat rate set out in the tariff is multiplied by the weighting factor to obtain the appropriate pilotage charge.

The Commission did examine such a method of computing pilotage dues (Part I, particularly pp. 174–5) but came to the conclusion that maximum gross tonnage, British measurement, is more practical on account of its ready availability (Part I, p. 180). No doubt the basic difference between the U.S. system and the British (or IMCO) system of measuring ships created difficulties and this *ad hoc* measurement system was adopted as a compromise.

Designated waters rates have been, as a rule, all inclusive, i.e., including berthing and unberthing, pilot vessel service and pilots' land transportation. By contrast, undesignated waters rates do not include berthing and unberthing charges and, until recently, did not include pilot vessel service and the cost of the pilots' land transportation. Since transportation charges varied not only on account of a ship's destination but also because of the place where the pilot happened to be when assigned, they caused many disputes. Since 1970, the new undesignated waters rates have also been all inclusive, except for berthing and unberthing charges.

(i) *Trip rates*

Designated waters trip rates. The basic trip rate is an all inclusive flat rate for a given trip; the actual charge varies from ship to ship through the application of the weighting factor described earlier.

The main trip rate is the through transit rate applicable both upbound and downbound. For this purpose, District 2 has always been dealt with as if each of its two sectors formed separate Districts.

Depending upon local circumstances, three methods are employed to provide for partial transits:

- An *ad hoc* rate for a given partial trip defined in the tariff; it is used where all the intermediate ports are situated along the full transit route, e.g., District 1, the Welland Canal and District 3.
- A rate per zone (e.g., Quebec Pilotage District, Part IV, p. 467) or different rates per zone or group of zones (e.g., Montreal Pilotage District, Part IV, p. 778). The latter is used in the western sector of District 2, e.g., all trips fully contained in the tariff zone of the designated waters of Lake Erie call for the same rate, e.g., Sandusky–Toledo, Southeast Shoal–Sandusky or Toledo.
- Distance run; this is flexible but cumbersome and serves as an omnibus provision for cases not otherwise covered; generally, a per-mile rate with a minimum and a maximum charge instead of the former method of prorating the full transit charge on the distance piloted. In the Welland Canal sector, there is an additional charge for each lock transited.

Undesignated waters trip rates. The basic trip rate for undesignated waters is based on the time factor. As for all other rates, the actual charge to a ship is arrived at through the application of the weighting factor formula. A rate is provided for a given period of duty. Duty in undesignated waters merely means that a pilot is on board at the disposal of the Master, whether or not any use is made of his services. This excludes occasions when a pilot is on board as a passenger, e.g., when a ship enjoys an indirect exemption from taking a pilot in undesignated waters because one of her officers holds a "B" certificate for the waters concerned and the pilot has to be carried on board to ensure his availability when entering designated waters, e.g., all Lake Erie trips involving navigation west of Southeast Shoal (because of the absence of a pilot boarding station), or elsewhere in undesignated waters when this is a more efficient way of providing a pilot for service at an outport.

Originally, the time rate was established on the basis of a 24-hour period or part thereof; as of July 7, 1970, it has been altered to a six-hour period or part thereof.

By contrast with a designated waters trip, the rate for an undesignated waters trip is not all inclusive—any berthing charges are added. Up to July 1970, pilots' travelling expenses, including pilot vessel service charges, were also recoverable from ships.

(ii) *Berthing charges*

Berthing and unberthing (referred to in the tariff as "docking" and "undocking") have usually been considered an inherent part of a trip or move and this was the practice until 1962 when a berthing charge was added for undesignated waters to encourage pilots already on board to perform port pilotage where this service existed (p. 123). Contrasting with the trip charge to which it is an accessory, the berthing charge is applicable only if the service has actually been rendered.

(iii) *Movages*

The Great Lakes Pilotage Regulations contain the usual definition of the term "move", in *résumé*, movement of a ship wholly within a harbour (subsec. 2(cc)). Hence, this meaning applies throughout the Regulations, including the tariff. To ensure clarity, the same meaning should have been retained in all other rules and orders connected with the Great Lakes Pilotage Administration. Unfortunately, "move" is given a different connotation in District 1 Working Rules (Ex. 432, sec. F-1) where for despatching purposes it is unintentionally used to refer to short trips in order to give pilots on the tour de rôle credit for a full trip. For tariff purposes, these so-called movages are trip assignments (Ex. 1541(y)).

Movages, designated waters. Originally, the tariff did not contain any provision for movages in designated waters. Such an item was first intro-

duced for District 3 in 1962 and for District 1 in 1966. It takes the form of an all inclusive basic rate, originally set at \$50 and later raised to \$120 in District 1 and \$125 in District 3 (subject to variation through the application of the weighting factor).

In District 2 there is no provision for movages, with the result that a movage in any of the ports of that District, whether in the Welland Canal sector which includes, *inter alia*, Port Colborne, or the western sector, calls for the basic trip rate for a partial trip in the tariff zone in which the port is situated, e.g., in the case of a movage in the harbour of Detroit (item 1(b)(viii)), \$125; for a movage in Port Colborne, it would appear that the minimum basic fee of \$120 would apply (item 1(b)(i)) (Ex 1541(y)).

Movages, undesignated waters. The item that had been added in this regard in 1962 has now been deleted, effective July 1970, with the result that a movage in any port situated in undesignated waters is now identified as a trip. Therefore, a movage in Toronto, for instance, which in 1969 cost \$39 plus transportation expenses and in July 1970 cost \$60 all inclusive, since August 12, 1970, has cost a minimum of \$180 provided the duration of the movage does not exceed 6 hours, i.e., the basic trip rate of \$60 for Lake Ontario for a 6-hour period and two berthing charges of \$60 each for unberthing and berthing (subject to variation through the application of the weighting factor); if the movage is from an anchorage to a berth or vice versa, it will be \$120 (Ex. 1541(y)).

(iv) *Travelling expenses (including pilot boat charges)*

One of the governing criteria for devising a tariff is that nothing should be left to chance or to be determined in any other way than by regulation, and that the actual fees should be capable of actual computation from the tariff (Part I, p. 149). It is the responsibility of the individual pilot (and, hence, of the District or sector) to be available wherever his services may be required within that District or sector; conversely, it is a condition of the exercise of his profession that he be disembarked at a port or landing place in his District or sector. The expenses involved in a pilot embarking or returning from an assignment are primarily a matter of internal organization. Poor organization (such as resulted from the application of the Sailing Master concept or as prevailed until recently in the western sector of District 2) results in considerable travelling costs as well as wastage of pilots' time. Some vessels should not be penalized by being required to pay higher dues than other vessels on that account. Rates are standard charges and, therefore, they must always produce the same revenue for the same service to the same vessel. Random charges resulting from the recovery from ships of travelling expenses violate such a rule (Part I, pp. 151-3).

The tariff for undesignated waters assignments violated this principle and, until it was rectified July 8, 1970, it was a continuous cause of dissatisfaction and frustration to shipping and a constant source of dispute. Now the pilots' travelling costs, including pilot vessel charges, are borne either by the pilot himself or form part of the District or sector organization; their incidence has been taken into consideration with other administrative and operational costs when the rates were fixed so as to spread them uniformly among all users (Ex. 1541(z)).

The practice of adding a pilot boat charge to the pilotage fees does not violate this principle. It is merely a method of devising the tariff to meet different circumstances, for instance, a trip assignment involving a berthing differs from one where the pilot is relieved in the stream (vide Part IV, p. 1018 and Part I, p. 183).

(v) *Indemnity charges*

Detentions and delays. The detention provisions contained in the tariff correspond, except for the case of a ship's late arrival at a boarding station, to the true nature of the term, i.e., an indemnity charge (vide Part II, pp. 157–8), a penalty or an additional charge for time lost by the pilot beyond the terms of his pilotage contract for which the ship is responsible either by default or on request. Since 1966, distinction has been made between detention and delays. Detention occurs when a trip is interrupted *en route* for the convenience and advantage of the ship, whether it be to load or discharge cargo or for any other reason. This, therefore, excludes trip interruptions due to conditions beyond the ship's control, weather or ice conditions and traffic congestion. An exception is now made with regard to the so-called winter season (Part IV, pp. 927 and 1026), i.e., between December 1 and April 8, when detention will be charged even if the trip interruption *en route* is due to these uncontrollable factors. On the other hand, delays mean the time lost by a pilot awaiting a ship's arrival or departure or at the end of an assignment if retained by the Master for the ship's convenience. This indemnity rate applies *from* the first hour except in the case of time lost due to waiting for a ship's arrival or departure, in which case it applies only *after* the first hour.

Cancellations. Re the nature of cancellation charges, vide Part II, p. 164. A flat rate is provided as a cancellation indemnity plus a detention charge if the cancellation occurs later than one hour after the pilot has reported at or after ordered time.

(vi) *Two-pilot rates*

In cases where two pilots may be jointly assigned to a ship or a ship unit (pp. 226–7), a 50 per cent surcharge is added to the charge that would normally have been made if only one pilot had been assigned.

(vii) *Navigation of dead ships and tug and tow "navigation units"*

The tariff does not provide for any special rate in these cases. Hence, unless such instances are considered exceptions and two pilots are jointly assigned, the rates will be those applicable when a ship is navigated under her own power, and in the case of a navigation unit, as if it were a ship. Nor is there provision for tugs and tows which are not dead ships. The weighting factor will apply only to tugs, since it is based on the dimensions of a "ship" and not a vessel. The use of the term "ship" in legislation where the term "vessel" is normally used indicates a clear intention to make a distinction. (For the meaning of the terms "ship" and "vessel", vide Part 1, pp. 213 and ff.)

COMMENTS

The structure of trip rates for designated waters is now generally adequate following the introduction of the weighting factor formula. Despite its theoretical advantage, the Commission had recommended against the adoption of a special ships' measurement system for computing pilotage charges because of the practical disadvantages involved, i.e., first, obtaining the required information, second, making the necessary calculations. Vessels should not be delayed solely to provide measurements. The Commission advocated ships' gross tonnage, British measurement, because of its representative value for ships' dimensions and also its availability (Part I, p. 180). It is agreed that modern calculating machines simplify the clerical work involved.

The Commission considers, however, that the trip rate structure would be improved if it were devised to meet the different situations where a substantial part of the pilotage traffic is in transit. The single all inclusive rate is satisfactory only when applied to similar services. It is the obvious method for port pilotage where practically all trip assignments involve pilot vessel service and berthing or unberthing, but this is not so where the Pilotage District or sector is an intermediate part of a waterway and most traffic is in transit. In such a case, the rates should be devised so as to provide a different charge to cover situations where a pilot boards or disembarks in the stream or at a berth. This would mean reducing the trip rate, extending the berthing charge to trips in designated waters and introducing the customary pilot boat charge. For a comparable situation, vide Part IV, p. 1018.

In the Commission's opinion, the absence of a rate for movages in District 2 is a serious deficiency in the tariff. The applicable rates should reflect the differences in objective value between different types of services (Part I, pp. 153-4). If a movage does occur in this District, the charge made appears disproportionately high.

Indemnity charges should apply only when the detention or delay is the ship's responsibility, and not (except during the winter season) when due to events over which the ship has no control. The detention and delay provisions in the tariff are realistic in this regard except when a ship arrives late at a boarding station. In the St. Lawrence Seaway system, a Master can not guarantee a time of arrival because traffic congestion at locks or a Seaway traffic operator's instruction may negate his forecast. In fact, pilotage despatchers aided by the constant flow of information they receive from Traffic Information Centres are in a much better position to ascertain when pilots are required and, in practice, they decide ordered time on this basis. Any error on their part or any delay due to circumstances beyond a ship's control should not penalize the ship. The same principle applies elsewhere. If it is considered reasonable that a ship should not be penalized on account of detention *en route* due to circumstances beyond her control, then, for the same reason, a ship arriving late at a boarding station should also be excused; if the cause of delay can not count as a detention indemnity for the pilot on board, neither should it count as a delay indemnity for the pilot waiting at the boarding station (vide similar recommendations re the Montreal District tariff, Part IV, pp. 784-5, and for comments, pp. 741-3 and 759-60, and re the Cornwall Pilotage District tariff, pp. 974-5).

The tariff is also deficient in that it does not provide for navigation units. Reference is made to the Commission's comments on the matter, Part I, p. 181.

(b) *Rate Increases*

The tariff as first introduced in 1961 was amended nine times. The increases were neither simultaneous nor uniform for all Districts and sectors, but varied from one District or sector to another and in amounts necessary to adjust for local revenue requirements.

Without entering into all details, the general picture appears in the trip rates for full transits which account for most of the pilotage revenue. These rates (disregarding the weighting factor) have varied as follows:

- In District 1, they were raised six times from \$200 as they were in 1961, i.e., once a year from 1966 to 1969 inclusive and twice in 1970, to \$332 basic rate—an overall increase of 66%.
- In District 2, a transit of the Welland Canal increased from \$125 to \$430, and between Southeast Shoal and Port Huron from \$125 to \$300; they have increased by 244% and 140% respectively.
- In District No. 3, a transit trip between Detour and Gros Cap rose from \$200 to \$370, an increase of 85%.

For undesignated waters, the \$50 rate for each 24-hour period plus travelling expenses has now become for each 6-hour period or part thereof

\$60 for Lake Ontario, \$65 for Lake Erie, \$60 for Lakes Huron and Michigan and \$65 for Lake Superior, including travelling expenses (P.C. 1970/1411 dated Aug. 11, 1970). It is difficult to evaluate the actual importance of these increases because the incidence of travelling expenses formerly recoverable from ships is not known.

Other items have also increased substantially, e.g., the detention charge which was originally \$5 per hour with a \$50 maximum per 24-hour period was raised in 1970 to \$10 per hour or part thereof with a maximum of \$160 per 24-hour period.

Tariff increases have been an annual occurrence in all Districts and sectors since 1967—they even occurred twice in 1970 one month apart—following demands by the pilot groups whose remuneration depends upon the net pilotage revenue earned by their services or those of all the pilots in the group. Pressure by the Canadian prevailing rate employee pilots for salary increases and improved working conditions has also had its effect on rates, although in less obvious fashion. The Canadian Government was forced to increase tariffs in order to offset the salary increases granted its employees and the increasing cost of the pilotage offices it operates, but this has been a much less pressing factor because the Government has always been prepared to accept a reasonable operational deficit when circumstances did not warrant a large rate increase. The operating expenses of pilotage offices are recurring fixed liabilities which have been mounting from year to year while District pilotage traffic has been substantially diminishing under the impact of a number of factors, principally the economics of lake voyages for ocean-going vessels (p. 134). The combined impact of these two factors and the resultant overbearing of pilots which can not be reduced except through normal attrition (p. 179) has made the rates insufficient to provide the pilots with an adequate annual income commensurate with their responsibilities.

On the other hand, the Shipping Federation bitterly opposed the pilots' demands because they threatened the survival of trade by ocean vessels in the Great Lakes system. Higher dues for vessels subject to compulsory pilotage make them unable to compete with lake vessels. Increasing the rates would become a self-defeating process: greater aggregate revenues would not necessarily result because a number of marginal operators would be forced out and the demand for pilotage would fall. It is a vicious circle which can be broken only by dealing with other governing factors such as administrative and operational costs, the number of pilots and unjustified compulsory pilotage.

The Canadian and U.S. Pilotage Administrations are gradually reducing the number of pilots in order to match the diminishing demand by not filling vacancies caused by normal attrition. Steps have been taken to

curtail the administrative overhead by such measures as abandoning dual but separate authorities in Districts (pp. 147–8). But the most significant remedial action would be to dispense vessels from pilotage requirements in open waters, thereby substantially decreasing aggregate pilotage costs and helping to restore the competitive position of ocean-going vessels.

The pressing demands by the pilots for annual rate increases and the equally strong opposition of the Shipping Federation have resulted in a substantial deterioration in relations between all the parties involved and, hence, the survival of the system is threatened. The veto in recent years of the Canadian Pilotage Administration has resulted in strikes by U.S. pilots and threats by U.S. pools to go into bankruptcy (p. 179), a recourse which is open to them under their system if the Pilots' Corporation responsible for operating a pool is unable to meet its liabilities and still provide the pilots with a reasonable income.

(c) *U.S. and Canadian Currency Problems*

While the U.S. Great Lakes Pilotage Act calls for identical rates in the legislation of both countries, this aim was never achieved as far as the payers (shipowners) are concerned. The wording of the Pilotage Regulations is the same in all respects (including the amounts to be paid) on both sides of the border but the cost to shipping varied because the rates are expressed in each country's own currency and not in absolute monetary values. Like tonnage measurement discussed on p. 286, this is another small point on which an agreement is difficult to achieve between two countries because of national pride.

The first Memorandum of Arrangements (1961, subsec. 3(h), Ex. 1400) provided that each pilotage station (pilots' pool) would bill pilotage fees in its respective currency. Short of expressing rates in absolute monetary values, this was the most logical solution, first, because a pilotage station is to be governed by the legislation of the country which has established it, second, unity of rates was achieved within the jurisdiction of each pilotage station. This was modified two years later through an amendment to the Memorandum by which the currency to be applied would be determined by the nationality of the pilot, U.S. or Canadian, who was given the assignment. The result was a variation in dues according to the vagaries of the *tour de rôle*.

COMMENTS

Except for the principle involved, this was a practical solution in the beginning because the two currencies were almost at par, but the difference became substantial when the Canadian dollar was pegged at 92½¢ U.S. on May 2, 1962. The disparity has been less pronounced since the Canadian

dollar was allowed to fluctuate freely in June 1970, but there is no guarantee that the gap will not widen at some future date.

This system is basically wrong because it discriminates against those vessels which are charged higher fees than others for the same service. The method adopted for the provision of services is strictly a matter of internal organization, and the fact that participation by both countries at all levels had been agreed to is immaterial as far as the users of the service are concerned. Any administrative difficulties that may be created by a uniform system of payment are no concern of shipping.

Despite its apparent simplicity, the present system of billing a vessel in the currency of the pilot who renders the service still causes extensive administrative complications: each pilotage office has constant exchange problems, in that charges billed in the other currency have to be converted to the office's currency once collected for the purpose of apportioning its operating expenses; when the pilots or their nominees are paid their net earnings, these should be in their currency, thus requiring a further conversion for the pilots who are not of the same nationality as the pilotage office; when the currency rate has changed substantially between the date the fees were earned and the date of the distribution, some pilots suffer a substantial loss which can not be prevented except at the expense of a complicated bookkeeping procedure which will prove self-defeating on account of the additional administrative costs involved.

It might be difficult to resolve the problem by adopting a formula, as was done for the rate structure (p. 286). Because there is a constant fluctuation in the exchange rate, it appears that no simple formula can be devised here. Since the 1969 reorganization, there has been no problem in District 2 because the various pilotage services that may be rendered are divided by types on the basis of the nationality of the pilots. A complete solution would be the extension of a similar procedure to the other sectors of the Great Lakes system.

If joint and equal participation in the provision of services is to be retained in some sectors, it is considered that the solution should be a return to the original principle that charges are made in the currency of the assigning office. This principle should not only be enunciated in the Memorandum of Arrangements but should be included in the U.S. and Canadian Great Lakes Pilotage Regulations.

(d) *Aggregate Cost to Shipping*

(i) *By sector*

Because of the overlapping ranges of activities of the pilots of the various groups and since, up to 1966 inclusive, the only identification given for sectors where fees were earned was whether they resulted from

designated waters or undesignated waters charges, it has not been possible to show from the available statistics the cost to shipping by sector for the years preceding 1967 as in the previous volumes of the Report. The data available for the years 1967, 1968 and 1969 have such segregation for those three years.

COST TO SHIPPING IN DISTRICT NO. 1 (DESIGNATED WATERS)

Year	Pilots	Trips	Movages	Detentions and Delays	Cancel- lations	Total
1967	District No. 1.....	\$640,985.48	\$ 485.00	\$8,040.50 ^a		\$649,510.98
1968	District No. 1.....	686,421.80	1,387.00	\$10,814.50	\$180.00	698,803.30
1969	District No. 1.....	732,960.20	78.00	17,680.50	414.00	751,132.70 ^b

^aArrived at by subtracting from available total charges for trips and movages.

^bCalculated total shown does not agree with given total of \$750,568.45 in exhibit.

SOURCE: Ex. 1215.

COST TO SHIPPING IN WELLAND CANAL SECTOR OF DISTRICT NO. 2 (DESIGNATED WATERS)

Year	Pilots	Trips	Movages	Detentions and Delays	Cancel- lations	Total
1967	District No. 2.....	\$512,348.50	^a	\$2,249.00	\$205.00 ^b	\$514,802.50
1968	District No. 2.....	684,147.35	^a	4,229.00	nil	688,376.35
1969	District No. 2.....	673,409.35	^a	4,037.00	225.00	677,671.35

^aA movage in District No. 2 is counted as a partial trip; vide p. 288.

^bArrived at by subtracting from available total charges for trips, detentions and delays.

SOURCE: Ex. 1215.

Study of Pilotage in Great Lakes System

COST TO SHIPPING ON LAKE ONTARIO (UNDESIGNATED WATERS)

Year	Pilots	Pilotage Fees					Recoverable Transportation Expenses*			Grand Total
		Trips	Movages	Detentions and Delays	Cancellations	Berthings*	Total	Travelling	Pilot Boats	Total
1967	District No. 1.....	\$ nil	\$ 50.00	\$ nil	\$ nil	\$ 25.00 ^a	\$ 75.00	\$ nil	\$ nil	\$ nil
	Lake Ontario.....	103,560.00	6,691.50	42,917.00 ^a	153,168.50	28,306.37	30,092.93	58,399.30
	District No. 2.....	2,765.00	75.00	40.50	\$906.86 ^b	3,787.36 ^c	250.48 ^d	261.94 ^d	512.42 ^d
	Lake Huron/Lake Michigan†.....	900.00	nil	40.00	nil	36.00	976.00	156.66 ^d	122.62 ^d	279.28 ^d
	Total.....	\$107,225.00	\$ 6,816.50	\$43,965.36	\$158,006.86	\$28,713.51	\$30,477.49	\$59,191.00
1968	District No. 1.....	\$ 191.00	\$ nil	\$ nil	\$ nil	\$ nil	\$ 191.00	\$ 57.24	\$ 32.20	\$ 89.44
	Lake Ontario.....	125,225.00	7,379.00	7,347.00	1,008.00	43,325.00	184,284.00	29,522.99	34,979.70	64,502.69
	District No. 2.....	1,357.00	nil	nil	nil	36.00	1,393.00	116.75 ^a	21.20 ^a	137.95 ^d
	Total.....	\$126,773.00	\$ 7,379.00	\$ 7,347.00	\$ 1,008.00	\$43,361.00	\$185,868.00	\$29,696.98	\$35,033.10	\$64,730.08
1969	Lake Ontario.....	\$143,939.00	\$ 6,363.00	\$ 7,162.75	\$ 408.00	\$47,393.00 ^a	\$205,265.75	\$31,626.56	\$36,474.00	\$68,100.56
	District No. 2.....	1,559.00	nil	nil	nil	486.00 ^e	2,045.00	1,335.08 ^f	290.00 ^f	1,625.08 ^f
	Total.....	\$145,498.00	\$ 6,363.00	\$ 7,162.75	\$ 408.00	\$47,879.00	\$207,310.75	\$32,961.64	\$36,764.00	\$69,725.64
	Total.....									\$277,036.39

*Recoverable transportation expenses and berthing charges apply only to undesignated waters sectors.

†U.S. pilots in training as District No. 2 pilots.

^aArrived at by subtracting all available figures from total (Can. and U.S. pilots combined).

^bCalculated by subtracting all available figures in each undesignated waters sector from total (Can. and U.S. pilots combined) and prorating for each.

^cCalculated by prorating total (Can. and U.S. pilots combined) for each sector of undesignated waters applicable.

^dAs transportation expenses are not detailed and exact segregation by sector is not possible, approximate figures were arrived at by taking the proportion of the undesignated waters trips in each sector.

^eApproximate figure calculated from the number of berthings performed at the applicable rate (\$36 prior to August 1, 1969, and \$39 after that date).

^fIn view of the division of assignments in 1969 into sectors by nationality of pilots, the transportation charges incurred by Canadian pilots were attributed to Lake Ontario assignments, and those by U.S. pilots were attributed to Lake Erie assignments, District No. 2 pilots having performed no assignments in the Lake Huron/Lake Michigan sector in 1969.

SOURCE: Ex. 1215.

COST TO SHIPPING IN LAKE ERIE SECTOR (UNDESIGNATED WATERS)

Year	Pilots	Pilotage Fees				Recoverable Transportation Expenses*			Grand Total
		Trips	Movages	Detentions and Delays	Cancellations	Berthings*	Total	Total	
1967	District No. 2	\$128,675.00	\$ 475.00	\$ 6,538.50	\$31,956.16 ^a	\$167,644.66 ^b		\$179,511.36
1968	District No. 2	198,159.00	1,474.50	19,426.25	216.00	37,154.50	256,430.25		276,736.35
	Lake Huron /Lake Michigan	73.00	nil	nil	nil	nil	73.00	nil	73.00
	Total	\$198,232.00	\$1,474.50	\$19,426.25	\$216.00	\$37,154.50	\$256,503.25	\$20,306.10	\$276,809.35
1969	District No. 2	\$191,169.00	\$ 954.00	\$29,430.75	\$228.00	\$36,965.00 ^d	\$258,746.75 ^e	\$20,435.00 ^f	\$302,827.23

*Recoverable transportation expenses and berthing charges apply only to undesignated waters sectors.

^aCalculated by subtracting all available figures in each undesignated waters sector from total (Can. and U.S. pilots combined) and prorating for each.

^bCalculated by prorating total (Can. and U.S. pilots combined) for each sector of undesignated waters applicable.

^cAs transportation expenses are not detailed and exact segregation by sector is not possible, approximate figures were arrived at by taking the proportion of the undesignated waters trips in each sector.

^dApproximate figure calculated from the number of berthings performed at the applicable rate (\$36 prior to Aug. 1, 1969, and \$39 after that date).

^eCalculated by subtracting all available figures from the Lake Ontario undesignated waters total.

^fIn view of the division of assignments in 1969 into sectors by nationality of pilots, the transportation charges incurred by Canadian pilots were attributed to Lake Ontario assignments, and those by U.S. pilots were attributed to Lake Erie assignments, District No. 2 pilots having performed no assignments in the Lake Huron/Lake Michigan sector in 1969.

SOURCE: Ex. 1215.

COST TO SHIPPING IN WESTERN SECTOR OF DISTRICT NO. 2
(DESIGNATED WATERS)

Year	Pilots	Trips	Movages	Detentions and Delays	Cancel- lations	Total
1967	District No. 2.....	\$505,745.00	^a	\$150,207.00	\$ nil	\$655,952.00
1968	District No. 2.....	656,922.00	^a	193,859.35	171.50	850,952.85
	Lake Huron/Lake Michigan ^b	414.00	^a	50.75	nil	464.75
	Total.....	\$657,336.00		\$193,910.10	\$171.50	\$851,417.60
1969	District No. 2.....	618,714.00	^a	126,382.50	459.00	745,555.50

^aA movage in District No. 2 is counted as a partial trip; vide p. 288.

^bU.S. pilots in training as District No. 2 pilots.

SOURCE: Ex. 1215.

COST TO SHIPPING IN DISTRICT NO. 3 (DESIGNATED WATERS)

Year	Pilots	Trips	Movages	Detentions and Delays	Cancel- lations	Total
1967	District No. 3.....	\$156,018.00	\$132.50	\$917.50 ^a		\$157,068.00
1968	District No. 3.....	170,802.00	nil	\$742.50	nil	171,544.50
1969	District No. 3.....	145,619.00	39.00	987.75	nil	146,645.75

^aArrived at by subtracting from available total charges for trips and movages.

SOURCE: Ex. 1215.

COST TO SHIPPING IN LAKE HURON/LAKE MICHIGAN SECTOR (UNDESIGNATED WATERS)

Year	Pilots	Pilotage Fees					Recoverable Transportation Expenses*		Grand Total
		Trips	Movages	Detentions and Delays	Cancellations	Berthings*	Total	Total	
1967	District No. 2	\$ 38,365.00	\$ 2,467.50	\$ 2,975.00	\$10,320.98 ^a	\$ 54,128.48 ^b	\$ 3,538.09 ^c	\$ 61,314.11
	Lake Huron/								
	Lake Michigan	68,720.00	7,862.50	6,246.50	23,610.00 ^c	106,439.00	11,987.19 ^c	127,809.38
	District No. 3	46,330.00	7,590.00	\$12,491.59 ^a	66,411.59 ^b	7,541.79	85,814.39
	Total	\$153,415.00	\$17,920.00	\$55,644.07 ^c	\$226,979.07	\$23,067.07	\$274,937.88
1968	District No. 2	\$ 21,189.00	\$ 1,426.50	\$ 3,708.00	\$ 36.00	\$ 1,192.75 ^c	\$ 27,552.25 ^a	\$ 1,837.34 ^c	\$ 29,723.30
	Lake Huron/								
	Lake Michigan	117,837.00	13,216.50	22,133.75	775.00	43,740.25	197,702.50 ^b	21,941.93	232,157.61
	District No. 3	68,571.00	29,349.50	15,535.50	396.00	19,888.00	133,740.00	20,153.45 ^c	168,121.80
	Total	\$207,597.00	\$43,992.50	\$41,377.25	\$ 1,207.00	\$64,821.00	\$358,994.75	\$43,932.72	\$430,002.71
1969	Lake Huron/								
	Lake Michigan	\$110,439.00	\$ 7,733.00	\$19,320.75	\$ 300.00	\$26,995.70 ^c	\$164,788.45 ^b	\$22,087.15 ^c	\$201,180.28
	District No. 3	89,130.00	51,936.00	17,652.00	978.00	36,253.73 ^c	195,949.73 ^b	26,968.54 ^c	236,232.42
	Total	\$199,569.00	\$59,669.00	\$36,972.75	\$ 1,278.00	\$63,249.43	\$360,738.18	\$49,055.69	\$437,412.70

*Recoverable transportation expenses and berthing charges apply only to undesignated waters.

^aCalculated by subtracting all available figures in each undesignated waters sector from total (Can. and U.S. pilots combined) and prorating for each.^bCalculated by prorating total (Can. and U.S. pilots combined) for each sector of undesignated waters applicable.^cArrived at by subtracting all available figures from total (Can. and U.S. pilots combined).^dArrived at by subtracting totals of other sectors undesignated waters from total for District No. 2 pilots in undesignated waters.^eCalculated by subtracting all available figures—in undesignated waters of Lake Huron/Lake Michigan and Lake Superior, for both Lake Huron/Lake Michigan pilots and District No. 3 pilots—from total (Can. and U.S. pilots combined) and prorating balance per number of berthings performed in each sector.^fAs transportation expenses are not detailed and exact segregation by sector is not possible, approximate figures were arrived at by taking the proportion of the undesignated waters trips in each sector.

SOURCE: Ex. 1215.

COST TO SHIPPING IN LAKE SUPERIOR SECTOR (UNDESIGNATED WATERS)

Year	Pilots	Pilotage Fees					Recoverable Transportation Expenses*		Grand Total
		Trips	Movages	Detentions and Delays	Cancellations	Berthings*	Total	Total ^d	
1967	District No. 3.....	\$ 38,010.00	\$47,391.00	\$19,786.41 ^a	\$105,187.41 ^b	\$15,939.28	\$121,126.69
1968	District No. 3.....	31,360.00	63,235.00	\$2,862.30	171.50	\$11,331.00	108,959.80 ^b	15,737.45	124,697.25
1969	Lake Huron / Lake Michigan.....	2,962.00	117.00	396.50	nil	6,168.55 ^c	9,644.05 ^b	971.45	10,615.50
	District No. 3.....	38,265.00	32,854.00	4,252.25	111.00	8,284.02 ^c	83,766.27 ^b	17,264.00	101,030.27
	Total 1969.....	41,227.00	32,971.00	4,648.75	111.00	14,452.57	93,410.32	18,235.45	111,645.77

*Recoverable transportation expenses and berthing charges apply only to undesignated waters sectors.

^aCalculated by subtracting all available figures in each undesignated waters sector from total (Can. and U.S. pilots combined) and prorating for each.^bCalculated by prorating total (Can. and U.S. pilots combined) for each sector of undesignated waters applicable.^cCalculated by subtracting all available figures—in undesignated waters of Lake Huron /Lake Michigan and Lake Superior, for both Lake Huron /Lake Michigan pilots and District No. 3 pilots—from total (Can. and U.S. pilots combined) and prorating balance per number of berthings performed in each sector.^dAs transportation expenses are not detailed and exact segregation by sector is not possible, approximate figures were arrived at by taking the proportion of the undesignated waters trips in each sector.

SOURCE: Ex. 1215.

(ii) *By groups of pilots*

Because of the direct relation between the cost to shipping (gross pilotage revenue) and the remuneration of the pilots or the share of the net pilotage revenue which is paid to the Canadian Government where the Canadian pilots are Government employees, statistics are available on the cost to shipping for services rendered by each group of pilots in all the various sectors over which their competency extends.

COST TO SHIPPING BY GROUPS OF PILOTS

Year	Group* of Pilots*	Pilotage Fees	Boat Charges	Travel Expenses	Total
1961	District No. 1.....	\$ 578,686.06	\$ n/av.	\$ 7,120.44	\$ n/av.
1962†		628,139.90	‡	13,066.52	641,206.42
1963		617,484.65	15,048.48	11,995.02	644,528.15
1964		607,030.30	1,969.28	1,096.88	610,096.46
1965		673,170.75	2,857.40	1,658.52	677,686.67
1966		667,236.55	543.40	298.81	668,078.76
1967		649,585.98	nil	nil	649,585.98
1968		698,935.30	32.20	57.24	699,024.74
1969		750,568.45	nil	nil	750,568.45
1970		798,003.61	nil	nil	798,003.61
1963	Lake Ontario.....	\$ 96,182.20	\$ 14,542.98	\$ 11,820.41	\$ 122,545.59
1964		106,240.00	18,996.02	12,422.46	137,658.48
1965		115,505.00	22,351.30	15,588.83	153,445.13
1966		139,910.00	28,610.73	26,061.78	194,582.51
1967		153,168.50	30,092.93	28,306.37	211,567.80
1968		184,343.00	34,979.70	29,522.99	248,845.69
1969		205,265.75	36,474.00	31,626.56	273,366.31
1970		297,091.75	13,103.40	11,456.81	321,651.96
1961	District No. 2.....	\$ 901,860.75	\$ n/av.	\$ 9,732.88	\$ n/av.
1962†		965,960.72	n/av.	12,574.24	n/av.
1963		1,142,352.18	5,885.86	9,214.36	1,157,452.40
1964§		1,289,535.00	4,381.00	7,654.19	1,301,570.19
1965		1,518,025.00	8,599.90	13,646.97	1,540,271.87
1966		1,440,540.00	3,348.30	10,681.56	1,454,569.86
1967		1,397,291.00	3,909.48	15,655.27	1,416,855.75
1968		1,825,267.70	3,476.11	19,138.99	1,847,882.80
1969	Can.	891,150.35	290.00	1,335.08	892,775.43
	U.S.	793,170.75	20,435.00	23,645.48	837,251.23
		\$ 1,684,321.10	\$ 20,725.00	\$ 24,980.56	\$ 1,730,026.66
1970	Can.	1,145,596.25	72.00	26.10	1,145,694.35
	U.S.	844,578.40	6,540.00	7,498.80	858,617.30
		\$ 1,990,174.65	\$ 6,612.00	\$ 7,525.00	\$ 2,004,311.65

*Can./U.S. combined, with the exception of 1969 and 1970 District No. 2 pilots.

†Can./U.S. currency without adjustment for premium or discount.

‡Included in piloting charges.

§Including Port Weller harbour pilots.

SOURCES: Exs. 1215 and 1373.

Study of Pilotage in Great Lakes System

Year	Group of Pilots*	Pilotage Fees	Boat Charges	Travel Expenses	Total
1964	Lakes Huron/Michigan....	\$ 84,520.00	\$ 7,758.00	\$ 5,230.76	\$ 97,508.76
1965		84,595.00	7,327.90	6,912.88	98,835.78
1966		130,295.00	11,456.46	9,090.41	150,841.87
1967		106,439.00	9,505.81	12,143.85	128,088.66
1968		197,877.75	12,513.18	21,941.93	232,332.86
1969		174,432.50	14,686.53	22,676.75	211,795.78
1970		359,219.88	5,351.64	10,227.70	374,799.22
1962	District No. 3.....	\$ 315,857.53		\$ 18,146.82	\$ 334,004.35
1963		\$ 318,157.39	\$ 11,155.39	16,213.85	345,526.63
1964		393,475.00	13,111.00	14,907.66	421,493.66
1965		400,175.00	12,413.75	15,936.41	428,525.16
1966		373,165.00	16,352.00	20,454.57	409,971.57
1967		328,667.00	13,737.32	21,604.76	364,009.08
1968		414,251.30	20,741.04	29,378.21	464,370.55
1969		279,716.00	25,137.51	46,972.07	351,825.58
1970		602,232.38	6,198.12	13,073.27	621,503.77

(3) FINANCIAL OPERATIONS

The principles governing the financial administration of the service have remained substantially the same since 1961 and the main changes have been organizational.

As is the case for operations, each pilotage office (U.S. pilots' pool) is an independent, self-supporting unit for financial administration. As the centre responsible for all operational requirements in the area under its jurisdiction, it can not be identified with any particular group of pilots and its operating expenses are met by all the pilots who have the benefit of its services and in relation to such benefit.

A pilotage office's operating expenses are financed from the pilotage revenue derived from those services which originated in the area under its jurisdiction. Hence, *inter alia*, as a means of ensuring that pilots meet their required contribution to these costs, each pilotage office was given full control over the revenue earned by pilots in its area of jurisdiction, including billing and collection of fees and accessory charges related to such services.

When pilotage earnings are collected, they are dealt with as if they belonged to the pilotage office and it pays from them its operating expenses as they are incurred. The operational surplus, or net revenue, belongs to the pilots or their representatives. The exact share of each pilot in the net revenue is ascertained at the end of the navigation season, advance monthly payments are made from funds available after a reserve has been set aside for anticipated expenditures and the final adjustment is effected at the end of the season when final accounting is established. The distribution of their

net revenues to the pilots who participate is on the basis of cash on hand and not earnings.

The first method of distribution, as contained in the 1961 Memorandum of Arrangements, was on the basis of a true pooling of pilotage revenues, with the net being shared on the basis of availability for duty, i.e., "on a pro-rata basis according to the actively participating United States and Canadian registered pilots." This is the ideal method but it applies only when each pilotage office deals with a single group of pilots—this is not the case in the Great Lakes system because of the continuity of the service throughout. In 1961, this caused few difficulties because the pilotage offices were identified with the various District pilot groups, except for reciprocal services in undesignated waters, and this difficulty was solved in the Memorandum by fixing an arbitrary contribution to the operating expenses of a pilotage office by the pilots of another District who had been served by it for undesignated waters assignments. In such a case, billing was done by the despatching District and it retained 25 per cent of the fees collected as its payment for administration (despatching and collecting), the remaining 75 per cent being sent "to the pilot's own District". This arrangement proved unsatisfactory because, except for District No. 3, it did not correspond to reality, since there was no such administrative entity as a Pilotage District (Districts 1 and 2 had two separate, independent pilotage offices within their respective limits).

These arrangements were changed by the first amendment to the Memorandum of Arrangements (entered into force February 21, 1963, with retroactive effect as of October 15, 1962). Dual pilotage pools were established and the original Sailing Master concept again prevailed. Determining a pilot's availability at each of the two pilotage offices in his District must have proved complicated. The net lake pilotage revenues paid to the District by other pilotage offices created more difficulties. These problems were resolved by changing the basis of the distribution of the net revenue to the actual contribution of each pilot to the gross revenue of the office, i.e., "on a pro-rata basis according to active participation by United States and Canadian registered pilots." To avoid double contributions to administrative expenses, as would have occurred if the net earnings remitted by other District offices were included in the pilotage fund of any of the District pools, the reciprocal function for lake assignments was limited to despatching; billing and collecting of fees and accessory charges were made the responsibility of the nearer pilotage office of the pilot's own District. The fees (but not the pilot boat charges) when collected formed part of the revenue of the pilotage office of the District to which the pilot belonged adjacent to the undesignated waters where the services were rendered. Despatching for return lake assignments became a reciprocal service free of charge.

The same principles were retained in the 1966 Memorandum of Arrangements but were expressed more clearly:

"5. (a) The office dispatching a pilot shall be responsible for collecting and accounting for pilotage revenues for that service except that, when a pilot is dispatched by a dispatching office outside his district, the billing and accounting will be the responsibility of the nearest billing office in his own district.

(b) The costs of operating and dispatching and related services shall be determined by the Secretary and the Minister and shall be paid out of the pilotage revenues and, except as provided in paragraph (c), the remainder divided into United States and Canadian shares in proportion to the revenues for pilotage services rendered by United States and Canadian registered pilots, respectively."

By this time, Lake Ontario pilots had been appointed and, although attached for administrative purposes to District No. 1 (in fact, to the U.S. Cape Vincent pilotage office), they formed a separate group. For despatching purposes, they came equally under the jurisdiction of the Cape Vincent and Port Weller pilotage offices depending on the zone of Lake Ontario where they happened to be at the conclusion of a lake assignment. However, being attached to District No. 1, Cape Vincent was their nearer home station and, since they could not perform any in-District assignments, it was their only pilot station. As far as financial administration was concerned, this situation permitted a return to the original method of distributing Cape Vincent net revenues accruing to the lake pilots, i.e., on the basis of daily availability. This amounted to establishing true pooling for the Lake Ontario pilots, U.S. and Canadian alike, their remuneration being unrelated to the aggregate amount of earnings their personal services brought into the common fund (which differed from pilot to pilot because of the different types of assignment given them through the luck of the tour de rôle) but on the basis of the most equitable consideration, i.e., their availability for despatching under common despatching rules:

"(c) The United States and Canadian shares of the pilotage revenues collected for services by pilots registered only for service in Lake Ontario shall be determined on the basis of the number of days on which United States and Canadian pilots, respectively were on duty or available for pilotage service."

The advent of the Lake Ontario pilots created a situation of exception for which no provision had been made. Despatching of Lake Ontario pilots from Port Weller was free of charge (except for pilot vessel service) because the lake pilots were considered District 1 pilots for that purpose. However, when the stage was reached that the lake pilots handled most assignments on Lake Ontario, the balance between despatching services that had existed when lake assignments were performed only by District 1 and District 2 pilots was altered and Port Weller provided many more free despatchings for the so-called District 1 pilots than Cape Vincent for District 2 pilots. The District 2 pilots then requested that the lake pilots be made to contribute to the Port Weller station's operational expenses.

The Port Weller Supervisor of Pilots had already brought the problem to the attention of the Pilotage Authority in his 1964 annual report (Ex 1023):

"We think it appropriate to draw to your attention the volume of work done by this office servicing Lake Ontario pilotage. We would point out that usually much more of the despatcher's time is consumed effecting these despatches because of communication difficulties and the demand for these few pilots.

This service is performed from this office free of charge and we sometimes incur telephone charges in order to effect a despatch when other means of communication are not available.

Part of the earnings of the Lake Ontario pilots is retained by #1 District for billing and despatching services. We are in effect subsidizing #1 District."

In his 1963 report, he had said:

"In addition to the increased paper work in the district business, we have found considerable time is consumed despatching Lake Ontario pilots to service harbour movements in Toronto and Hamilton. We have a record of 710 despatches to these ports and Lake Ontario transits.

This service is supplied at no cost and it would appear now that some despatching fee should be charged for this additional service."

This problem has now been settled. Lake Ontario pilots are now assessed \$1.70 per despatch from the Port Weller office (Ex. 1541(u)).

These arrangements have remained substantially the same. The main modification appeared in the 1969 Memorandum of Arrangements which authorized the Secretary and the Minister to make whatever arrangement they might deem appropriate with regard to financial operations.

For District No. 1, this resulted in centralizing the administration, including its financial operations, in the Cornwall office, and the Cape Vincent station became merely a boarding station. District 1 pilots now come under the jurisdiction of a single administrative authority and there is no obstacle to establishing a true pooling system. This, however, was not done and the distribution of the District pilots' net revenue has officially continued to be effected on the basis of their individual contribution to their pilots' pool (except for the Lake Ontario pilots where a true pooling system was retained). Up to 1970, District 1 pilots were scarcely affected because the same result is arrived at (except for differences caused by the rate of exchange) through the despatching system based on the equalization of trips which the pilots adopted. This ensures an equal division of trip assignments among all pilots and, hence, of their resulting revenues, since the great majority of their trips are full transits carrying an identical charge. The same satisfactory result may no longer be obtained: since the adoption of the weighting factor in July 1970, earnings for comparable assignments may now vary by as much as 52.9% (i.e., between the lowest weighting factor, 0.85, and the highest, 1.30) depending upon the size of the ship. This new factor has rendered the equalization system obsolete as a means of ensuring equitable sharing of pilotage revenues.

The situation with regard to Lake Ontario pilots has remained unchanged except that the administration formerly performed by the Cape Vincent office is now discharged by the Cornwall office which, in addition to handling their despatching for lake assignments through its Cape Vincent satellite office, supervises the pooling of their net earnings from all services they have rendered, including those originating from the Port Weller station to which the \$1.70 flat charge for administration and the pilot vessel service charges continues to be paid.

But for the Canadian Government as employer of the Canadian pilots in the Lake Huron/Lake Michigan sector and District 3 (and to a lesser extent now in District 2), the problem of sharing pilotage revenues equally remains in its entirety. While all pilots in each group, Canadian and U.S. alike, are governed by the same working rules and despatching procedures, the great disparity between assignments precludes an equal sharing of the workload either from the point of view of the number of similar assignments or aggregate duty hours. This proved to be a serious source of contention between the Department of Transport and the Lake Superior Pilots Association operating the District 3 pilots' pool. It was charged that the Canadian pilots were discriminated against by being given fewer but more time-consuming assignments. The result was an above average workload in terms of aggregate time on duty but, under the prevailing arrangements, a smaller share of net earnings. If Canadian participation is to be retained, the only solution to the problem is to establish a true pooling arrangement which will provide each pilot or his representative an equal share of net earnings for equal availability.

The accounting operations of the U.S. pools are governed by regulations made in this connection by the U.S. Great Lakes Pilotage Administrator: "The Great Lakes Pilotage Uniform Accounting System Manual" (46CFR 403). Since the Canadian pilotage offices are operated by the Department of Transport, their accounting procedures are governed by the Department of Transport Accounting Manual, sec. 5, subsec. 3, relating to Kingston and Port Weller Pilotage Authorities (Ex. 1498(c)) and are subject to audit by Government auditors.

Since 1966, the Memorandum of Arrangements has provided that the accounts of each despatching office are to be subject to joint audit by designated representatives of the Secretary and the Minister.

The Memorandum of Arrangements, however, does not provide for the joint approval of proposed expenditures by U.S. pilot pools or Canadian pilotage offices, and the lack of some means of control on behalf of all those who are eventually called upon to pay liabilities so incurred has

caused several serious arguments. One such a case is the 1962 Cape Vincent pilot vessel dispute (p. 217), and others also occurred, mainly in District 3 (pp. 314–5). A principal source of contention under the U.S. system is the distinction made between common operating costs which should be borne by all the pilots who benefit from pool services and the costs that are incurred for the Pilots' Association as such (for the Commission's views on such a situation, vide Part I, pp. 554–6). The complete independence enjoyed by the U.S. Associations in the organization and operation of pool services has also resulted at times in very high operational costs that could have been avoided.

There are no fully informative statistics on the cost of operating pilotage services in the eight Districts and sectors of the Great Lakes system, or with regard to each of the pilots' groups. The Commission has tried to prepare such comparative tables from the available annual financial and audit reports of the five administrative authorities, but the task proved impossible due to the lack of uniformity in accounting systems and the numerous changes in accounting procedures. Since, no doubt, all the financial documents are available at each pilotage office, it might be possible to compute the desired statistics, but the extensive work and cost such a task would have involved were not considered warranted for the purpose of this Report, especially since a sufficient picture can be established from the available statistics and financial statements.

The joint *Statistical Report Great Lakes Pilotage* (Ex. 1542) which is issued annually by the Canadian and U.S. Central Authorities contained, up to 1968, a cumulative table of pilotage receipts and expenditures (shown in U.S. currency) by year (vide *Appendix A*, Part III, Table 7 of the Statistical Report) dividing the information on the basis of the original system of organization by Districts. To appreciate the meaning of the terms *Gross Earnings* and *Expenses* used in this table, reference should be made to Table 3 which shows the details of the figures quoted for the year 1968.

The 1969 annual report did not carry the same cumulative table but contains Table 3 wherein, for the first time (but for District 1 only), a distinction is made between the river (District) pilots and the Lake Ontario pilots. This table is reproduced hereunder (the figures are also expressed in U.S. currency) so as to provide the 1969 figures required to complete the comparison referred to earlier. The segregation between Canadian and U.S. pilots for District 1, Lake Ontario and District 3 is meaningless.

Study of Pilotage in Great Lakes System

Therefore, for the purpose of the table below, the figures have been combined. It is, however, quite relevant in District 2, especially in 1969, because of the *de facto* division of the District on the basis of the nationality of the pilots (except for the two Canadian pilots performing special assignments in its western sector).

		District No. 1		District No. 2		District No. 3
	Total	River	Lake	U.S.	Canada	
<i>Revenue</i>						
Pilotage revenue.....	\$3,119,603	\$717,838	\$196,864	\$791,620	\$824,046	\$589,235
Reimbursable subsistence and travel.....	121,729	—	28,880	21,769	1,235	69,845
Reimbursable boat charges.....	94,647	—	34,114	20,408	268	39,857
Reimbursable despatching and accounting charges.....	22,115	16,084	—	3,850	2,181	—
Total revenue ¹	\$3,358,094	\$733,922	\$259,858	\$837,647	\$827,730	\$698,937
<i>Expenses²</i>						
Pilots' subsistence and travel..\$	125,845	\$ —	\$ 28,880	\$ 28,383	\$ 1,235	\$ 67,347
Boat charges.....	227,146	34,693	34,114	42,618	56,446	59,275
Despatching and accounting....	213,635	49,031	18,265	57,754	56,513	32,072
Communications.....	21,025	3,519	—	4,682	2,654	10,170
Other.....	49,315	8,824	—	9,496	5,139	25,856
Total expenses ¹\$	636,966	\$ 96,067	\$ 81,259	\$142,933	\$121,987	\$194,720
Excess of pilotage revenue over pilotage expenses ¹						
	\$2,721,128	\$637,855	\$178,599	\$694,714	\$705,743	\$504,217
Number of assignments.....	15,826	2,716	2,266	3,072	4,604	3,168

¹Amounts shown are in U.S. dollars.

²Expenses are those recognized in inter-association settlements.

As a result of the gradual abandonment of the Sailing Master concept of organization, a sector or a group of sectors (except for District 3) has come to be identified with a group of pilots. Therefore, it has been possible from the 1969 financial statements to establish the aggregate amount and details of the operating expenses on such a basis, except for District 3 and the Lake Huron/Lake Michigan pilots who are now attached to it. This study establishes the situation as it now stands.

(a) *Operating Expenses District No. 1*

For a number of years the District 1 pilots have been performing only in-District assignments. They are under a single administrative authority consisting of D.O.T. personnel with headquarters at Cornwall whose extra-District administrative and operational jurisdiction now extends only to the Lake Ontario group of pilots.

Up to 1967 inclusive (except for 1961 when the District was solely under Canadian administration during the organizational period), to arrive at the cost of operating the District it was necessary to combine the operating costs of both administrative authorities, i.e., the Cornwall pilotage office and the Cape Vincent U.S. pilots' pool, while deducting from each despatching expenses incurred for adjacent services. Up to and including the 1968 season, the cost at the Cornwall office of the Canadian despatchers' salaries, overtime, shift differential and fringe benefits was shared equally between the Canadian Pilotage District of Cornwall and Great Lakes District No. 1, as were also the costs of the telex circuit linking Montreal and Cornwall. This, to a certain extent, amounted to a Canadian subsidy to District 1. Because of the sophisticated marine traffic information and communications available, all despatching of Cornwall pilots since the opening of the 1969 season has been handled from the Montreal despatching centre, and District 1 pilotage office in Cornwall no longer has anything to do with the Cornwall District pilots. Hence, the Department of Transport on behalf of the Pilotage Authority of the Cornwall District no longer shares in District 1 costs—these are now entirely borne by the District out of its pilotage earnings (Ex. 1541(aa)).

The same technical progress which led to a centralized despatching centre in Montreal enables the Cornwall pilotage office to serve as a despatching centre for the Lake Ontario pilots for assignments which formerly came under the jurisdiction of the Cape Vincent U.S. pool, and it also handles all the administrative work (except despatching from Port Weller) connected with these pilots. The share of the District 1 administrative authority's operating expenses to be borne by the Lake Ontario pilots has been fixed at 10 per cent of their pilotage fees (these do not include their transportation expenses and the cost of pilot vessel service which, until the 1970 revision of the tariff, were recoverable from the ships served during undesignated waters assignments).

The 1969 audited report of the District No. 1 Pilotage Authority (Ex. 1409) lists in Canadian dollars the various items of operating expenses. The share paid by the Lake Ontario pilots is shown in the form of a refund, leaving a total of \$86,487.77 of administrative expenses chargeable against the aggregate pilotage earnings of the District 1 pilots (11.1% of their gross revenue).

Study of Pilotage in Great Lakes System

Employees' salaries and benefits.....	\$ 53,006.85
Rental office space and equipment.....	2,246.54
Repairs to office equipment.....	34.97
District administrative travel.....	25.66
Telephone.....	3,055.70
Telex.....	747.68
Postage and express.....	316.26
Stationery and supplies.....	500.16
Cape Vincent station costs.....	5,920.00
Cape Vincent pilot boat costs (2,679 one-way trips).....	37,506.00
Source forms.....	350.63
Repairs to office equipment.....	126.00
Expenses reimbursed to pilot (post-season navigation).....	18.15
Loss absorbed on U.S. exchange.....	1.30
Total.....	\$ 103,855.90
Less refund from lake pilots.....	17,368.13
Operating expenses for District 1 pilots.....	86,487.77

In order to relate the 1969 expenditures as above with the amount shown on the 1969 Revenue and Expenses Table on p. 308, it is necessary to allow for the different currency rate (.925) and the fact that in that Table the contribution from the lake pilots to District 1 administrative expenses (U.S. \$16,084) is shown for the river pilots as revenue for bookkeeping purposes, thereby somewhat confusing the presentation sought here.

In Canadian Pilotage Districts where the Minister is the Pilotage Authority, e.g., Cornwall, operating expenses as listed earlier are met by an indirect subsidy from the Department of Transport to the District concerned. This factor should be taken into consideration when comparing gross pilotage earnings, pilotage rates and other statistics.

As provided in the Memorandum of Arrangements, Canadian and U.S. pilots in all sectors except Lake Ontario form two separate groups for revenue sharing purposes, and the shares of the net income are calculated proportionately to the aggregate contribution of each group to aggregate earnings.

In 1969, District 1 gross earning amounted to \$775,986.29 (Can.), of which \$432,258.25 were earned by the services performed by Canadian pilots and \$343,728.04 by U.S. pilots. Thus, their proportionate shares in the net earnings were 55.7% and 44.3% respectively.

The Canadian pilots' share of the net income was \$384,050.68 from which the Government retained \$6,505.75 to reimburse part of the cost of taxi service between Snell lock and Cornwall incurred by the Canadian

pilots of District 1 (p. 218). The U.S. pilots do not use this service since they commute between Massena and Snell lock and pay their transportation expenses as they occur. For in-District assignments, rates are all inclusive and any travelling expenses incurred by District 1 pilots for in-District assignments are borne by them, since their remuneration is related to District revenue. This explains the deduction from their aggregate share of travelling expenses incurred by the Canadian Government on their behalf. This left for 1969 the sum of \$377,544.93 which was paid to the Canadian Pilots' Association for distribution among the Canadian pilots according to the pooling arrangements they have devised (p. 317).

The share of the U.S. pilots was \$305,447.84, from which a deduction of \$756.00 was made as the U.S. Association's assessment against them. Thus, the aggregate net share for distribution among the District No. 1 U.S. pilots was \$304,691.84. It was paid to the U.S. Pilots' Association for distribution according to the pooling arrangements they have made (pp. 161 and 317).

(b) *Operating Expenses Lake Ontario Pilots*

The Lake Ontario pilots do not have their own administrative authority. As seen earlier, they come under the jurisdiction of both District No. 1 and the Port Weller station for despatching, while all financial details involving them are handled by the District No. 1 administrative authority. Their contribution to the operating expenses of these offices has been fixed for District 1 at 10 per cent of their pilotage fees and, since 1969, for the Port Weller station, \$1.70 per despatch effected at that station (Ex. 1541(u)). Because they perform only undesigned waters assignments (except in Kingston harbour), the net income after deductions was, up to 1969, their take-home pay (all their travelling expenses, including pilot boat charges at Cape Vincent and Port Weller, were reimbursed by the ships they piloted).

The comparable operating expenses attributable to the Lake Ontario pilots for 1969 represented 20% of their gross revenue:

Contribution to Cornwall office expenses.....	\$ 17,368.13
Contribution to Port Weller office expenses.....	2,378.30
	<hr/>
	\$ 19,746.43
Cape Vincent pilot vessel service (1,694 one-way trips).....	23,716.00
Port Weller pilot vessel service (708 one-way trips)....	12,744.00
	<hr/>
	\$ 56,206.43

The financial statements for the Lake Ontario pilots also show as expenditures the pilots' other travelling expenses amounting to \$31,220.56, and ferry service fares between Kingston and Wolfe Island amounting to \$420.00. These items do not form part of pilot station expenses, and the fact that they were then recoverable from ships does not affect their nature as personal expenses of each individual pilot.

Their aggregate gross revenue amounted to \$281,024.13 (including the recoverable pilot boat charges) leaving them a net revenue, prior to deduction of their personal expenses, of \$224,817.70.

(c) Operating Expenses—District No. 2 Pilots

The *de facto* division of District 2 which came into effect with the 1969 season and is complete as far as operations are concerned has not been extended to financial operations—these continue to be governed by the criteria enunciated in the Memorandum of Arrangements, despite the fact they are inapplicable except for groups of Canadian and U.S. pilots participating equally in the provision of services in a given sector under the same working arrangements, a situation which no longer exists in reality. The earnings of all District 2 pilots and the operating expenses of the pilot stations at Port Weller and Port Huron continue to be pooled. The net aggregate revenue is then divided into two shares, one U.S. and one Canadian, in the proportion of the respective contribution of the pilots of each country to the aggregate gross revenue (Ex. 1541(cc)).

With the *de facto* division of the District, the Port Weller pilot station has become the sole administrative authority of the Welland Canal pilots (all Canadians), but only in so far as their Welland Canal duties are concerned. Because there is no Lake Erie group of pilots, some Lake Erie assignments are carried out by Welland Canal pilots, in which event they come under the jurisdiction of the administrative authority of the western sector at the Detroit change-point. Conversely, while the Port Huron administrative authority has exclusive jurisdiction over all U.S. District 2 pilots for assignments performed in the District (except in the Canadian ports in that sector), U.S. pilots performing Lake Erie assignments occasionally come under the Port Weller administrative authority for despatching from Port Colborne. Another small problem is determining the share of expenses to be paid by the two Canadian pilots operating in the Canadian ports on the Detroit River and St. Clair River, but this does not prevent the extension of the *de facto* division of the District to financial operations. Nevertheless, this desirable step has not yet been taken.

The pilots (other than District 2) engaged in lake assignments take advantage of the facilities and services of the Port Weller and Port Huron stations. These pilots are required to pay for pilot vessel service on a trip basis, and are now charged a fixed fee for each despatch.

The 1969 joint audit report for the financial operations of the Port Weller/Port Huron stations (Ex. 1408) lists the operating expenses incurred by the two District 2 administrative authorities and charged against the pilots' gross earnings. Statement 3 is quoted below *verbatim*.

	Port Huron	Port Weller
	<i>U.S. Dollars</i>	<i>Can. Dollars</i>
Operating and Administrative Expenses		
Pilot Boat Charges.....	\$ 22,210.26	\$ 60,732.75
Contract Dispatching.....	21.00	
Employees Salaries and Benefits.....	47,172.16	55,196.70
Rental Building and Equipment.....	6,545.80	3,540.35
Depreciation Expense—Furniture and Equipment.....	669.43	
Heat, Light, Power and Water.....	961.48	431.04
Repairs—Office Equipment.....	65.26	61.66
Repairs and Maintenance—Buildings and Grounds.....	2,395.02	2,403.77
Administrative Travel.....	869.80	1,602.24
Telephone, Telegraph, Telex.....	4,682.25	2,869.22
Insurance and Bonding.....	165.34	
Postage and Express.....	354.46	469.00
Other—Materials, Supplies, Stationery.....	522.21	588.20
Audit Expense.....	1,973.75	
	<u>\$ 88,608.22</u>	<u>\$ 127,894.93</u>
Port Weller operating and administrative expenses expressed in U.S. currency at .925 rate differential.....		U.S. \$ 118,302.81
Total operating and administrative expenses.....		U.S. \$ 206,911.03

The system of billing and collection was changed in 1969. The Port Weller station now is responsible for all fees and charges resulting from services rendered by District 2 Canadian pilots, i.e., not only the Welland Canal pilots but also the two Canadian pilots stationed in the western sector. Conversely, the Port Huron station handles the billing and collection of all fees and charges earned by U.S. District 2 pilots (Ex. 1541(cc)). In 1969, these earnings for the Canadian pilots amounted to U.S. \$824,045.82 (Can. \$890,860.35) and for the U.S. group, U.S. \$791,619.55—a grand total of U.S. \$1,615,665.37. Since the Canadian contribution accounted for 51% of the aggregate earnings and the U.S. pilots' contribution 49%, the aggregate operating and administrative expenses of U.S. \$206,911.03 were shared in that proportion: \$105,531.87 for the Canadian pilots and \$101,379.16 for the U.S. pilots. The net amount accruing to the Canadian pilots was U.S. \$705,743.01 but it was paid to the Canadian Government since all the Canadian pilots in District 2 are its salaried employees.

Out of the U.S. gross share (U.S. \$703,011.33) the following deductions were made before distribution to the pilots concerned:

United States pilots' expenses for automobile operation, maintenance and depreciation.....	\$ 6,613.90
Advisory association dues.....	1,683.75
Total.....	\$ 8,297.65

(d) *Operating Expenses—Lake Huron/Lake Michigan Pilots*

Originally, assignments in the Lake Huron/Lake Michigan sector were shared between District 2 and District 3 pilots and, therefore, the facilities and despatching services at Port Huron and Detour were free of charge to the pilots of the other District. The expenses of the joint Chicago pilotage office were shared between District 2 and District 3 in proportion to the number of times their pilots were despatched. These arrangements continued after the appointment of lake pilots. However, after the re-organization of District 2 in 1969, which entailed, *inter alia*, the withdrawal of District 2 pilots from service in the Lake Huron/Lake Michigan area and the transfer for administrative purposes of the Lake Huron/Lake Michigan pilots to District 3, the Chicago station became the sole charge of the District 3 administrative authority, and a despatching charge was established for each lake despatch from Port Huron (Ex. 1541 (bb)). These despatching charges at Port Huron amounted to \$3,850.00 in 1969 and, in addition, the same pilots paid Port Huron \$20,407.50 for pilot vessel service.

Since the District No. 3 financial statement does not segregate revenues or expenses either by group of pilots or by sector, it is not possible to ascertain from the statements available the exact share of expenses borne by the Lake Huron/Lake Michigan pilots.

(e) *Operating Expenses—District No. 3 Pilots' Pool*

As already indicated, the financial statement for 1969 of the Lake Superior Pilots Association, Inc. concerning the District 3 pilots' pool includes, without segregation, all earnings and expenses connected with the services rendered by the Lake Huron/Lake Michigan pilots in their sector and by the District 3 pilots for their services in the District as well as in the open waters adjacent to it, i.e., the Lake Huron/Lake Michigan and Lake Superior sectors and their ports.

The main difficulty encountered by the auditors with regard to accounting for pool operations by the U.S. Pilots' Association was its failure to segregate the financial operations of the pool from those of the Association. The problem would be theoretical if all the pilots using the pool and compelled to meet its operating expenses were members of the U.S. Pilots'

Association but this is not the case because there are a few Canadian pilots both in District 3 and in the Lake Huron/Lake Michigan group. Because these Canadian pilots are salaried employees of the Department of Transport, their net earnings accrue to the Canadian Government, which should not be required to contribute in any way to the operating expenses of the U.S. Pilots' Association as such. The joint audit by the two Governments as now provided for in the Memorandum of Arrangements was added to redress the situation. With regard to the 1969 year of operations, the joint auditors struck out \$19,005.82 from the administrative expenses charged to the pool because these were expenses pertaining to the U.S. Association's own activities. It was also found that the pool had been wrongly charged as expenditures for subsistence and travel expenses \$21,185.62 which, together with other plus and minus corrections, made a total minus readjustment in the claimed expenditures of \$40,002.24. This readjusted the total of expenditures from \$112,506.16 to \$72,503.92. Similar difficulties, but to a much lesser extent, were also met in District 2 in connection with the Port Huron financial statement.

District No. 3's aggregate pool operating expenses for the year 1969 are stated as follows in Ex. 1391:

Operating Expenses:

Gas, oil, repairs—Autos.....	\$ 4,567.65
Auto Leasing.....	8,250.00
Administrative Salaries.....	11,125.47
Office Rent—Duluth, Chicago, Milwaukee.....	4,007.00
Office Supplies and Materials.....	3,408.16
Administration Travelling.....	3,822.11
Telephone—Duluth, Soo, Chicago, Milwaukee	10,169.48
Insurance and Bonding.....	5,547.58
Postage.....	360.00
Bank Charges.....	172.09
Auditing.....	810.00
Dispatching—Duluth, Ft. William, Soo, Pt. Huron.....	15,794.24
Miscellaneous Taxes.....	43.40
Repairs and Laundry.....	191.05
Depreciation.....	134.00

Total Operating Expenses.....	\$ 68,402.23
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To bring the cost of operations into line with those quoted for the various pilotage offices, it would be necessary to add the cost of providing pilot vessel service, even that part which is recoverable from vessels. This item amounted to \$59,275.18 of which \$39,857.61 was recoverable.

Although no details are given, it is surmised that the foregoing expenses include the \$3,850.00 for despatching services charged by the Port Huron station and the \$20,407.50 for pilot vessel service extended at Port Huron to District 3 pilots or lake pilots (vide p. 314).

The U.S. and Canadian pilots' contribution to the \$589,234.94 aggregate earnings of the pool was respectively \$447,764.72 and \$141,470.22, i.e., 75.99% and 24.01%, establishing the extent of their participation in the pool's operating expenses.

(4) PILOTS' REMUNERATION

Preamble

There were frequent complaints that the Canadian pilots were generally discriminated against because their remuneration was less than that of their U.S. colleagues in the same sector. Except for the variation due to the exchange rate (pilotage charges are in Canadian or U.S. dollars according to the nationality of the pilot—a discrepancy the Commission feels should be corrected (Rec. 12)), a comparison of the pilots' income is not valid because the amounts involved are not comparable until consideration is given to fringe benefits and the security provided by a guaranteed minimum income, additional revenue and reimbursed expenses.

Great caution should also be exercised when comparing the remuneration of pilots from different groups because the nature of their work and the extent of their workload are not the same. For this reason alone, the remuneration of District No. 1 pilots should be substantially higher than that of Lake Ontario pilots. District No. 3 pilots stand somewhere between the pilots restricted to in-District assignments and lake pilots because they have a combination of a short stretch of designated waters and extensive open waters where most of their pilotage time is spent.

Many other factors must also be considered, e.g., the demand for, and difficulty of, pilotage duties. Hence, comparisons made prior to 1969 without making these distinctions between the remuneration of District 1 and District 2 pilots whose assignments extended over the open waters of all the Great Lakes, except Lake Superior, were bound to be defective and misleading. Each group is a special case and the criterion is not the remuneration of the next group of pilots, or of other groups of pilots, but what remuneration should be offered to attract the type of mariner whose qualifications meet the standards required by the nature and circumstances of the local service (p. 177). These will vary from sector to sector: very high in some areas, average and general in others (Part I, p. 138). The amount paid one group of pilots is bound to affect other groups but the rates should be set with due allowance for all local factors and differences.

In the Great Lakes system, three methods of remuneration are now officially recognized:

- Each pilot is paid the fees he has earned by his services, less his contribution to administrative expenses proportional to his participation in the common fund.
- Each pilot receives an equal share (except for the currency differential) of the net earnings based on availability for duty (Lake Ontario pilots, both Canadian and U.S., act as one group (p. 323).
- Canadian pilots who are prevailing rate employees are paid a pre-determined salary and are entitled to additional remuneration for extra work, plus fringe benefits.

In a system of fully controlled pilotage where the unofficial status of the pilots is *de facto* employees, they usually make a private arrangement to pool their earnings if their administrative authority has failed or refuses to do so. In the Great Lakes system, the various administrative authorities do not pool the earnings of the pilots under their jurisdiction (except the Lake Ontario pilots). The official rule is that each pilot is paid all the earnings accruing from his services less his pro-rated share of administrative and operating expenses.

The Commission has not made any inquiry to find out whether the U.S. pilots have adopted private pooling arrangements but is aware from their Working and Despatching Rules that the U.S. District 1 pilots have done so (vide p. 161). These are private arrangements which the Commission has considered beyond its mandate in so far as the U.S. pilots are concerned. Therefore, for U.S. pilots, the Commission takes the aggregate amount of the fees earned by their services, less their share of official administrative expenses, as their actual remuneration. Since the U.S. pilots in each District have formed a professional association, they have to share the operating expenses of their corporations. The Commission is aware that there are other group expenses, *inter alia*, premiums for insurance coverage.

With regard to the Canadian pilots, the only sector in which such a situation may arise is District 1, since the Lake Ontario pilots' earnings are officially pooled and all other Canadian pilots are salaried employees of the Government. In fact, the District 1 Canadian pilots, like their U.S. colleagues, have agreed to pool their earnings privately.

As for workload, detailed statistics (Ex. 1215) have been available from 1963 on for the official gross and net earnings (not receipts) brought in by the services of each pilot, U.S. or Canadian, including Canadian Government

employees. It is on these statistics that the joint *Statistical Report Great Lakes Pilotage* (1968 version reproduced as Appendix A) is based. In order to obtain figures that could be compared, the Commission has adopted average figures calculated in the same way as the average workload (p. 231), i.e., in order to take into consideration only pilots with full availability, the figures quoted are the average earnings of the busiest 80% of the pilots. To arrive at the net average earnings, a deduction was made on the basis of the percentage contribution toward the administrative expenses established for the year concerned. As in Ex. 1215 on which these figures are based, they are shown in the currency of the nationality of the pilots, just as the fees were charged to ships (pp. 293 and ff.).

(a) *District No. 1 Pilots*

The following table lists for District No. 1 pilots with full availability their average gross and net earnings. The net earnings were arrived at by deducting District operating expenses only calculated on the basis of applying the percentage of operating expenses paid annually out of the pilots' gross earnings (pp. 309–10) as established by the annual financial reports (Ex. 1409). When studying this and similar tables to follow it should be remembered that amounts for Canadian pilots are shown in Canadian dollars while those for U.S. pilots are in U.S. dollars. The exchange rate used each year to determine the final distribution is shown in the last column. Therefore, to establish the earnings of the U.S. pilots in Canadian dollars the amounts listed must be converted.

Year	Average Gross Earnings		Less Expenses	Average Net Earnings		U.S. Exchange
	Can.	U.S.		Can.	U.S.	
			%			%
1963	\$16,051.40	\$18,097.96	19.0	\$13,001.63	\$14,659.35	7.9
1964	19,190.14	21,173.50	13.9	16,522.71	18,230.38	7.9
1965	21,351.31	18,123.74	10.5	19,109.42	16,220.75	8.0
1966	21,071.85	21,046.55	17.1	17,468.56	17,447.59	n/av.
1967	19,169.25	19,198.15	n/av.	n/av.	n/av.	n/av.
1968	21,485.26	21,362.40	12.9	18,713.66	18,606.65	8.7
1969	22,979.12	22,829.15	14.2	19,716.08	19,587.41	8.7

Sources: Exs. 1215 and 1409.

As was to be expected, the average earnings of Canadian and U.S. pilots in this District have been practically the same. This is the normal result of a despatching system based on the equalization of trips principle when assignments consist mainly of trips of the same nature and earn the same fee. The small differences are accounted for by assignments for which there is no equalization, i.e., movages, a few partial trips which for despatching purposes count as one full trip but call for only a partial fee and accessory indemnity charges. It is because the majority of trips did not bring in the same revenues that wide differences occurred prior to 1966. In those years, District pilots had frequent Lake Ontario assignments which counted as one trip for despatching purposes but varied greatly in earnings. Under the equalization of trips system, the amount of earnings was then a question of chance which sometimes favoured the Canadian pilots and sometimes the U.S. pilots. The same discrepancies are now bound to re-occur commencing with mid-1970 when the weighting factor was introduced. The fairly equal sharing of District earnings resulting from the equalization of trips and flat rates will no longer be possible, because the charges for a full transit may vary as much as 52.9% depending upon the size of the ship. There would be no problem from the point of view of remunerating the pilots if all earnings were pooled and Canadian and U.S. pilots with equal availability were paid similar shares like the Lake Ontario pilots, but the Canadian and U.S. groups in this District pool their aggregate earnings separately. It is considered that this is an inequitable situation which is bound to create difficulties—it should be corrected by establishing a true pooling system for all District 1 pilots.

Despite the considerable decrease in pilotage demand since the peak years of 1965–66 (p. 99), the individual pilot's remuneration has been constantly rising under the combined effects of reduction in numbers (p. 180) and substantial annual increases in fees (pp. 291 and ff.).

The net earnings quoted earlier do not represent net revenue since each pilot must pay his share of the operating expenses and the joint expenditures of his Pilots' Association, and must also meet without reimbursement (except for lake assignments up to mid-1970) all his transportation and living expenses.³ As seen earlier (Part IV, pp. 956–8), some of the personal transportation costs of Canadian pilots are deducted from their aggregate group earnings prior to payment to their Association, i.e., the aggregate amount owing to the Canadian Government for the taxi service it provides to

³ By contrast, the Cornwall District pilots do not bear personally their transportation costs—they are recovered from ships (Part IV, p. 976). The net earnings and remuneration quoted for District 1 are not comparable with those of the Cornwall District pilots (Part IV, p. 983) unless the latter are increased by the average per pilot of the amounts so recovered from ships.

transport Canadian pilots between Cornwall and Snell lock. This procedure has the advantage of apportioning this outlay among all the Canadian pilots, but other transportation and living expenses vary from pilot to pilot depending upon their assignments. For District 1 pilots, transportation costs do not include the Cape Vincent pilot vessel service since its cost forms part of the general operating expenses of the District.

Also as seen earlier (p. 311), since 1969 the District administrative authority has retained from the aggregate U.S. pilots' share the U.S. Association's assessment against U.S. pilots—this amounts to \$756 which belong to the Association as such. The net aggregate amount of the U.S. pilots' earnings is paid to the same Association but on behalf of the U.S. pilots for distribution according to the rules they have adopted as a group.

It is known from the Working Rules and Despatching Procedures (Ex. 432) that the U.S. pilots pool their earnings through their Association. Sharing is on the same basis as had been adopted by the Canadian pilots and is related to the despatching system which operates on the number of assignments and not on availability. At the end of the season every pilot whose total number of trips is not more than one below the total average of the top seven pilots is entitled to a full share; the other pilots are paid a full share less the value, as averaged, of the number of trips they lack to obtain a full share. In addition to the reimbursement of travelling expenses, these rules provide for free turns for attendance at authorized Association meetings or to conduct Association business when this involves going off the tour de rôle. Subsec. 04 provides for deducting the Association's administrative expenses from the pool. It is reasonable to assume that the U.S. pilots have other expenditures to meet out of their revenues, e.g., group insurance, which further reduce their actual take-home income.

The Kingston District pilots (in other words the Canadian pilots registered for District No. 1) have always pooled their earnings. They have retained the pooling procedure in force when they and the present Cornwall District pilots were pilots in the St. Lawrence–Kingston–Ottawa Pilotage District (for details, see By-law No. 2 of the Corporation of the Upper St. Lawrence Pilots, Ex. 848). This is why, except for a few differences in detail, their pooling procedure is essentially the same as in the Cornwall District. This method is a logical accompaniment of the equalization of trips system which was adopted at their request (vide the study of the Cornwall pilots' pooling system, Part IV, pp. 977 and ff.). The only substantial difference is that they have not adopted the recent innovation in the Cornwall system to ensure full attendance at the end of the season, the so-called winter pool. There is only one pooling period per year with interim distributions, generally

on a monthly basis. Full trip transits, as well as Lake Ontario assignments, count for one turn each. Half turns are granted for trips of short duration as determined by the Board of Directors. For details of the Corporation of the Upper St. Lawrence Pilots and its financial operations, vide pp. 186–95, especially the tables pp. 191–2 where the accounting procedure for pool operations is explained. Re administrative costs and other pool liabilities, including group expenses, vide pp. 192–5 where, *inter alia*, the aggregate value of free turns granted Directors is shown.

The following table shows for the years 1960–1969 the number of pilots sharing in the pool, the number who obtained a full share and the amount of such full share, but does not include the incidence of sharing in earnings from winter navigation. As in the Cornwall District, the pilots' full share is calculated before personal deductions for Federation and Guild fees (these are the same for all pilots, \$225 in 1969), insurance premiums (these vary with the pilot's marital status: \$991.52 for a married man, \$741 for a single man in 1969) and the initiation fee (\$300 in only one case in 1969). The corresponding table for the Cornwall pilots is Part IV, p. 981.

POOLED EARNINGS

Year	Total Pilots Sharing	Pilots with Full Shares	Amount of Full Share
1960.....	21	19	\$11,105.40
1961.....	21	21	12,785.48
1962.....	21	11	13,323.36
1963.....	21	20	11,889.17
1964.....	n/av.	n/av.	n/av.
1965.....	20	12	17,501.59
1966.....	20	10	16,819.73
1967.....	n/av.	n/av.	n/av.
1968.....	19	17	17,775.50
1969.....	19	18	18,530.91

SOURCE: Ex. 861.

Non-pooled items comprise detention, recoverable expenses and true winter pilotage earnings (fees, detention and recoverable expenses). Statistics on the earned basis are not consistently available for each year. It is not, therefore, possible to draw up tables that would compare with the "Non-Pooled Earnings" table or the "Comparative Analysis of Income Brackets" in

Part IV, p. 982, regarding the Cornwall District pilots. The 1969 Corporation financial statements give the following information which may serve as a guide:

Aggregate detention (earned).....	\$ 10,926.95
Recoverable expenses (earned).....	1,984.00
Winter navigation (paid).....	4,463.00
Total.....	\$ 17,373.95

The actual amount each pilot receives from these sources varies because they are not pooled; the average per pilot for 1969 was \$914.42 which, added to a full share of the pool, \$18,530.91, makes for that year an aggregate average gross remuneration of \$19,445.33 and, after deducting Federation fees and insurance premiums, a net average remuneration of \$18,308.81 for a married man and \$18,479.33 for a single man. It should also be borne in mind that there are additional travelling and transportation costs (apart from taxi fares between Snell lock and Cornwall deducted from the aggregate share of the Canadian pilots by the Kingston Pilotage Authority and the Dougan pilot vessel service at Kingston paid by the Corporation from the pool prior to sharing (p. 191).

(b) *Lake Ontario Pilots*

The following table is on the same basis as the table for District 1 pilots (p. 318). It shows the average gross and net earnings of Lake Ontario pilots with full availability.

AVERAGE EARNINGS OF LAKE ONTARIO PILOTS

Year	Average Gross Earnings		Less Expenses	Average Net Earnings		U.S. Exchange
	Can.	U.S.		Can.	U.S.	
			%			%
1963	\$16,490.20	\$17,598.05	10.5	\$14,758.73	\$15,750.25	(All in Can. \$)
1964	8,473.33	12,892.50	n/av.	n/av.	n/av.	7.9
1965	13,687.50	9,543.00	10.4	12,264.00	8,550.53	9.2
1966	10,970.00	9,280.83	10.4	9,829.12	8,315.62	n/av.
1967	12,649.42	10,796.75	n/av.	n/av.	n/av.	n/av.
1968	13,974.83	13,449.04	9.6	12,633.25	12,157.93	8.7
1969	16,452.54	15,975.10	9.3	14,922.45	14,489.42	8.7

SOURCES: Exs. 1215 and 1409.

When these figures are compared, a distinction should be made between the different connotations of the terms "gross earnings" and "net earnings" in the context of the rate structure for undesignated waters up to mid-1970. Until then, pilots on undesignated waters assignments were reimbursed for all their travelling expenses, including pilot boat charges, but these recoverable items are not shown in the statistics as part of the pilots' gross earnings. The operating expenses shown here to arrive at the net figures consist of only the percentage of their gross earnings they are required to pay the District 1 administrative authority in lieu of their share of District operating expenses, and the despatching fees they now pay the Port Weller station. All the Lake Ontario pilots without distinction of nationality have agreed since 1965 to pool their earnings. Sharing is on the basis of pilotage fees earned (not collected) and availability for duty. This is the only equitable approach on account of the great variation in type and duration of assignments and the earnings they produce (vide pp. 245-6).

The pool is administered by the District No. 1 administrative authority free of further administrative charges. Since the lake pilots are generally available, their full share is substantially the same as the net average share of fully available pilots quoted in the previous table. In 1968, for instance, eight of the 14 sharing pilots had full availability, four were absent 4 days or less, one, 11 days and one, 77 days. The full share that year amounted to \$12,199.92 Canadian. In 1969, out of 13 sharing pilots only two were not fully available, one being absent one day and the other one 41 days. The full share that year was \$14,557.86 Canadian (Ex. 1409).

COMMENTS

The Lake Ontario pilots' remuneration is still lower than in District 1, even after deducting a proper allowance from the net earnings of District 1 pilots for travelling expenses. Since the nature of pilotage and the workload are not comparable (pp. 118 and 241-2), remuneration should not be comparable. Since the required *expertise* for a District 1 pilot is much more extensive and exacting, his remuneration should be greater for equal availability. This factual situation is consonant with the criterion applicable when the remuneration of pilots is established.

(c) District No. 2 Pilots

The average gross and net earnings of District 2 pilots with full availability are as shown in the next table.

AVERAGE EARNINGS OF DISTRICT NO. 2 PILOTS

Year	Average Gross Earnings		Less Expenses	Average Net Earnings		U.S. Exchange
	Can.	U.S.		Can.	U.S.	
			%			%
1963	\$17,008.29	\$20,684.38	10.8	\$15,171.39	\$18,450.47	7.9
1964	20,461.25*	22,257.60	12.8	17,842.21**	19,408.63	7.9
1965	18,732.86	20,746.56	9.3	16,990.70	18,817.13	8.0
1966	17,219.31	21,928.93	n/av.	n/av.	n/av.	n/av.
1967	15,896.95	19,738.56	10.2	14,275.46	17,725.23	n/av.
1968	23,982.16	26,692.00	9.3	21,751.82	24,209.64	8.7
1969	21,449.36	25,393.07	14.4	18,360.65	21,736.47	8.7

*Includes \$625.50 re Port Weller harbour pilots.

**Includes \$547.18 re Port Weller harbour pilots.

SOURCES: Exs. 1215 and 1408.

Here again, the meaning of gross and net earnings differs substantially from what is meant by these same terms applied to District 1 or Lake Ontario pilots. This is on account of the extensive lake assignments which were performed by District 2 pilots up to 1968 inclusive and the importance of the Lake Erie assignments they continue to perform. Therefore, in order to ascertain the true net earnings of District 2 pilots, it would be necessary to deduct non-recoverable travelling expenses, i.e., those incurred during in-District assignments.

There have always been substantial differences in the average and net gross earnings of U.S. and Canadian pilots with equal availability, despite the fact that up to 1968 they shared the same workload and were governed by the same working rules. This is mainly accounted for by the different incentives of the two groups resulting from their different terms of employment and method of remuneration. This resulted, *inter alia*, in an exception being placed in the rules for U.S. pilots exempting them from mandatory relief at lock 7 (pp. 253 and 259). In 1963, this exemption brought them \$100 extra per transit. In general, the Canadian pilots are more likely to complete an assignment as soon as legally possible because this improves their working conditions; the U.S. pilots, on the other hand, strive to extend their time on duty because this increases their earnings. It is a fair suggestion that, if the Canadian pilots had had the same status as their U.S. colleagues, first, there would have been the same working rules for both groups and, secondly, the average earnings of pilots with full availability in each group would have shown the same variations, one year in favour of the U.S. pilots, another to the advantage of the Canadians, for the same basic reasons that prevailed in District 1 before 1966 (pp. 284-5). This situation was corrected by the 1969 re-organization and each group now has exclusive jurisdiction over given types of assignment (pp. 256-60), thus eliminating the discrepancies resulting from the variation in assignments and their aggregate revenue.

The Commission is unaware of the pooling arrangements, if any, of the U.S. pilots. The net figures quoted above are not clear income since they have to pay their share of the administrative expenses of their Association, either through assessments or as a first charge against the pool. In addition, like other U.S. Pilots' Associations, they doubtless have group insurance premiums to pay.

The gross remuneration of the Canadian Great Lakes prevailing rate employee pilots consists of:

- (i) salary during the navigation season, the duration of which varies from year to year but is generally a little over eight months, and the fringe benefits accruing to Crown employees and other financial advantages inherent in the status of employee, e.g., full reimbursement of living-out expenses when away from home port (normally a living-out allowance) and of transportation expenses for travel between stations or to or from assignments away from home port;
- (ii) pre-season and post-season earnings by those who volunteered (pp. 259-60).

Salary deductions are each pilot's share of contributions to superannuation, medical and surgical group insurance, workmen's compensation and the Canada Pension Plan (the remaining share is contributed by the Government and forms part of the pilots' fringe benefits). With regard to pre-season and post-season earnings, the pilots are treated as private entrepreneurs and, therefore, have to meet out of this revenue their travelling and living-out expenses. However, they are not required to share in the administrative expenses of the pilot station and such revenue does not count for superannuation purposes. In addition, most of the pilots are members of the Corporation of Professional Great Lakes Pilots (p. 196) and are required to pay dues both to this Corporation and to the Federation of the St. Lawrence River Pilots with which the Corporation is now affiliated. Those pilots who have joined the Canadian Merchant Service Guild on an individual basis are also liable for its dues.

The differences in the aggregate revenue of the individual pilots are mainly due to the extent of their availability during the navigation season, the number of holidays taken, the amount of annual leave to their credit at the end of the season, whether or not they volunteered for pre-season and post-season pilotage and, if so, the importance of the assignments received since, although assignments are according to tour de rôle, they differ greatly and earnings are not pooled, and, finally, to a negligible extent as far as some deductions are concerned, their marital status. For details of the changes affecting the remuneration and conditions of employment of the Canadian Great Lakes pilots as prevailing rate employees, see pp. 201 and ff.

Study of Pilotage in Great Lakes System

The following table shows for the years 1963, 1964 and 1969 the gross salaries (hence, excluding the revenues from pre-season and post-season pilotage) earned by Canadian District No. 2 pilots, and the number of pilots whose aggregate salary for the navigation season fell in the bracket concerned.

Aggregate Salary Bracket	1963	1964	1969
\$20,500-21,000.....	18
20,000-20,500.....	22
19,500-20,000.....	2
19,000-19,500.....
18,500-19,000.....
18,000-18,500.....
17,500-18,000.....
17,000-17,500.....
16,500-17,000.....
16,000-16,500.....
15,500-16,000.....	1
15,000-15,500.....
14,500-15,000.....	1
14,000-14,500.....
13,500-14,000.....
13,000-13,500.....
12,500-13,000.....
12,000-12,500.....	2	22
11,500-12,000.....	3	3
11,000-11,500.....	27	4
10,500-11,000.....	1	1
10,000-10,500.....	2
5,000-10,000.....	1	1	1
0-5,000.....	2
Total Number of Pilots.....	34	35*	45

SOURCE: EX. 1019.

*Excluding the two Port Weller harbour pilots who were paid \$7,359.74 and \$7,594.15 respectively.

District No. 2 supplementary earnings from pre-season and post-season pilotage were:

- (i) in 1963, aggregate gross earnings of \$10,050 shared among 27 out of 34 pilots; two pilots received more than \$1,100 each and one more than \$950;
- (ii) in 1964, an aggregate amount of \$12,399.20;
- (iii) for 1969, an aggregate of \$5,982.50 shared among 26 out of 45 pilots; the largest amounts earned by individual pilots were \$1,259.50, \$499.00, \$404.50 and \$350.00.

The percentage value of fringe benefits in 1969 was:

Surgical/Medical (Government's share)1%
Vacation505
Workmen's Compensation (Government's share)3
Rest periods	4.05
Statutory holidays	2.97
Superannuation (Government's share)	12.85
Total	20.775%

(d) *Lake Huron/Lake Michigan Pilots*

The average gross and net earnings of Lake Huron/Lake Michigan pilots with full availability are shown in the next table.

Year	Average Gross Earnings		Less Expenses	Average Net Earnings		U.S. Exchange Rate Used
	Can.	U.S.		Can.	U.S.	
1964.....	\$ 7,860.00	\$ 7,930.00	11.2%	\$ 6,979.68	\$ 7,041.84	.925%
1965.....	7,672.50	9,767.50	10.4	6,874.56	8,751.68	.925
1966.....	8,127.50	10,274.29	11.6	7,184.71	9,082.47	.925
1967.....	7,589.08	9,798.25	14.0	6,526.61	8,426.49	n/av.
1968.....	13,817.92	16,936.19	9.8	12,463.76	15,276.44	n/av.
1969.....	17,248.25	16,594.71	11.2	15,316.45	14,736.10	.925

SOURCES: Exs. 1215 and 1408.

The comments made concerning the different connotations of the terms "gross earnings" and "net earnings" when applied to the Lake Ontario pilots (p. 323) also apply here. By contrast with the Lake Ontario pilots, however, all the Lake Huron/Lake Michigan pilots do not share the same status: the actual earnings of the Canadian pilots during the navigation season accrue to their employer, the Canadian Government. Since they perform neither pre-season nor post-season pilotage, their only remuneration is their salary and the various benefits and advantages derived from their status as Government employees.

Except for the monthly salary rate, and the four extra vacation days granted in 1971 (see p. 207), their remuneration and terms and conditions of employment are the same as described for Canadian District 2 pilots. The details and value of fringe benefits are also the same (see above).

The actual gross salaries earned by the four Lake Huron/Lake Michigan Canadian pilots for the years 1969 and 1970 (these lake pilots did not exist as such in 1963 and 1964) were as follows:

1969	\$17,502.44	\$17,508.04	\$17,508.04	\$17,645.75
1970	\$16,764.92	\$16,734.38	\$14,786.62	\$14,786.53

(e) *District No. 3 Pilots*

The average gross and net earnings of District No. 3 pilots with full availability are shown in the next table.

Year	Average Gross Earnings		Less Expenses	Average Net Earnings		U.S. Exchange Rate Used
	Can.	U.S.		Can.	U.S.	
1963.....	\$17,187.54	\$19,745.03	26.4%	\$12,650.03	\$14,532.34	.925%
1964.....	25,937.50	26,326.82	23.0	19,971.87	20,271.65	.925
1965.....	13,476.00	26,921.50	20.5	10,713.42	21,412.59	.925
1966.....	16,921.25	24,661.36	18.9	13,723.13	20,000.36	.925
1967.....	18,666.83	20,841.30	23.4	14,298.79	15,964.44	n/av.
1968.....	20,838.42	25,125.27	19.8	16,712.41	20,150.47	n/av.
1969.....	18,373.63	25,640.75	12.3	16,113.67	22,486.94	.925

SOURCES: Exs. 1215 and 1391.

Although the applicable working rules do not cover the matter, the Commission is aware that the U.S. District 3 pilots pool their earnings and that sharing is on the basis of availability for duty. This is the only equitable method in view of the great diversity in the nature and duration of their various District and lake assignments.

The few Canadian pilots in District No. 3 have the status of Canadian Government prevailing rate employees and, therefore, their actual pilotage earnings accrue to the Canadian Government. Here again, they do not perform any pre-season or post-season pilotage and, hence, their only source of remuneration is their salary and the benefits and advantages attached to it. Otherwise, their gross and net remuneration is exactly as described, even the amount of the monthly salary (pp. 206-7) as described for Canadian District 2 pilots (p. 324). The gross salaries earned by the few Canadian pilots for the years 1963, 1964, 1969 and 1970 are as follows:

1963	\$11,149.35	\$10,793.46	\$10,479.36
1964	11,795.31	11,795.31	12,068.05
1969	20,366.14	11,296.10	20,355.84
1970	19,438.24	19,438.25	19,287.84

Chapter D

RECOMMENDATIONS

RECOMMENDATIONS AFFECTING THE PILOTAGE AREAS OF THE GREAT LAKES SYSTEM

PREAMBLE

This chapter contains the Commission's recommendations on subject-matters of basic importance regarding pilotage in the Great Lakes system which is covered in this Part of the Report. Following the practice adopted in the other Parts, many of the proposals in the form of comments, remarks and conclusions are contained in the text but have not been listed here to avoid repetition and also because they should be read in their context for better comprehension.

Inter alia, attention should be paid to the various remarks regarding the illegalities and deficiencies in Canadian legislation dealing with the requirements for pilots' qualifications (pp. 16 and 17), the re-appraisal power of the Canadian licensing authority (p. 19), the registration procedure (p. 22), the lack of co-ordination between Part VI and Part VIA C.S.A. (pp. 26 and ff.), the non-binding effect of the working rules on Canadian pilots (pp. 161, 164, 171 and 172), the fact that Canadian Lake Ontario pilots are not legally competent to pilot in Kingston harbour (pp. 164 and 165), and the comments on recruiting and apprenticeship (pp. 184-5). It is also considered that there is danger in imposing unwarranted pilotage requirements for the purpose of increasing revenue (p. 179) and that the divergence in Canadian and U.S. attitudes towards pilots' organizations (p. 185) should be resolved.

RECOMMENDATION No. 1

The General Provisions of the Proposed Canadian Pilotage Act Also to Apply to the Canadian Waters of the Great Lakes System and Separate *ad hoc* Legislation to Be Avoided; However, Provisions of Exception to Be Embodied in the New Statute to Cover Special Circumstances, Such as Those Resulting from the Bina-tionality of the Pilotage Waters on the Great Lakes

Ad hoc legislation carries the double risk that the subject-matter may be only partly covered and correlation with other legislation may be neglected. Part VIA C.S.A. is no exception (pp. 25–30).

The confined waters of the Great Lakes system present individual pilotage problems and there are also differences between sectors, but these are to be expected. Since pilotage is a local service, each pilotage area is a special case and, hence, the service should be organized to meet the type of demand which local circumstances dictate. Accordingly, those general principles and provisions of common application which a fully comprehensive Pilotage Act should contain (Part I, Gen. Rec. No. 6) apply equally to the restricted sectors of the Great Lakes, but legislative provisions to meet local situations of a permanent nature should be embodied in the general Act as cases of exception (sec. 356A C.S.A. is a good example of this procedure). The main situation in the Great Lakes system which the statute must cover is the special problem caused by the binationality of pilotage waters. One aspect is the inclusion of reciprocal provisions to extend to the United States complete pilotage jurisdiction in specified Canadian waters of the Great Lakes, provided the United States grants similar jurisdiction to Canada in specified United States waters. Other provisions of exception should be included to enable Canada to coordinate its Great Lakes pilotage requirements with the United States.

When new terms have to be used, e.g., to ensure that Canadian and U.S. legislations are parallel, care should be taken to correlate the new terms with those in the general Act, in order to avoid the risk of rendering such provisions inapplicable. It should be borne in mind that, according to the rules of interpretation, when different terms are used, it denotes an intention to have different meanings in order to exclude the application of other statutory provisions. A case in point is the adoption in Part VIA C.S.A. of the term “registered pilot”. As far as general Canadian pilotage legislation was concerned (Part VI C.S.A.), the term “licensed pilot” met the requirements, but in the U.S. general legislative context it had a substantially different meaning (p. 35); hence, the necessity for adopting a new term. The absence of an appropriate provision in the legislative definition of the term “registered pilot” in Part VIA C.S.A. (subsec. 375A(c) to relate it, *mutatis mutandis*, to the statutory definition of “licensed pilot” (subsec. 2(44))), whenever it was intended to refer to a pilot who has been granted authorization to exercise his profession in a given sector by the appropriate agency of Government, automatically rendered most of the provisions of Part VI inapplicable to a “registered pilot”. For instance, a Court of Formal Investigation which has the power to suspend or cancel a pilot’s *licence* is powerless to deal with a *registration certificate* (p. 28).

RECOMMENDATION No. 2

Compulsory Pilotage in the Existing Designated Waters of the Great Lakes System to Be Maintained Subject to Certain Adjustments in Sector Limits; the Pilotage Service Provided in Each Sector under Canadian Control to Be Classified an Essential Public Service

It is in the public interest that all reasonable precautions be taken to protect Seaway installations and locks against damage by ships and to ensure that the locks are transited not only safely but as rapidly as possible, since slow manoeuvres detract from the efficiency of Seaway operations and cause traffic congestion which delays shipping unduly. Furthermore, a serious mishap in a confined section of the Great Lakes waterway could block this busy artery of commerce which is vital to the economy of Canada and presumably of the United States as well.

In these circumstances, the Governments concerned are justified in intervening and taking the necessary steps to ensure that ships negotiating Seaway locks, canals and channels are navigated by persons with the necessary skill and *expertise*. Accordingly, the pilotage service in each of these sectors should be classified as essential (Part I, p. 509).

As recommended for those sectors under Canadian jurisdiction, this classification would automatically entail, *inter alia*, the following:

- Compulsory pilotage would be applied (Part I, Gen. Rec. 22, p. 532 and its accessory Gen. Rec. 23, p. 539, re personal exemptions);
- the Pilotage Authority of each District would assume responsibility for the direction and management of the service (Part I, Gen. Rec. 14, p. 495);
- the pilots would become employees (preferably salaried rather than *de facto*) of their respective Pilotage Authorities (Part I, Gen. Rec. 24, p. 545).

Compulsory pilotage in the existing designated pilotage sectors of the Great Lakes should be maintained (Part I, p. 509), subject to certain adjustments in sector limits to make them correspond to the actual areas of restricted navigation. These designated sectors, as adjusted, should be:

- (a) the St. Lawrence Seaway between Snell lock and Cape Vincent (i.e., the “designated waters” now forming District No. 1), but excluding Kingston harbour (for the reasons stated earlier, vide pp. 136–8) and the short stretch of the River between Snell lock and St. Regis (vide Part IV, Rec. 3);
- (b) the Welland Canal, but excluding Port Colborne for all ship movements not related to the Welland Canal (pp. 135–6);

- (c) the dredged approaches to the ports situated at the west end of Lake Erie and the connecting channels between Lake Erie and Lake Huron (i.e., the “designated waters” now forming District No. 2, but excluding the western open-water sector of the District for reasons given on p. 89 and in Rec. 9);
- (d) the connecting channels and Seaway locks between Lake Huron and Lake Superior (i.e., the “designated waters” now forming District No. 3).

RECOMMENDATION NO. 3

Compulsory Pilotage in the Undesignated Waters of the Great Lakes to Be Abolished and the Existing Publicly Organized Pilotage Services in the Open Waters of the Great Lakes to Be Discontinued

The compulsory pilotage requirement for Great Lakes undesignated waters is unwarranted either in the public interest or for the safety of navigation. It demands a costly, involved service which serves little, if any, purpose and adversely affects ocean-going and coastal vessels and, hence, the Canadian economy.

To impose, directly or indirectly, pilotage upon vessels or a certain group of vessels is a restriction on the freedom of navigation which can not be justified unless required in the public interest. As a rule, a ship should be navigated by her Master, or by her officers under his authority, since not even the most experienced pilot has a better knowledge than the Master of his ship's peculiarities, capabilities and limitations. Therefore, the Government should not interfere with this basic responsibility of shipmasters unless public interest is involved (Part I, Gen. Rec. 22, p. 532).

The open waters of the Great Lakes can be navigated with safety by experienced mariners without employing a pilot (pp. 118–9). Even if a shipping casualty were to occur in these areas, it would affect only the parties involved, i.e., the owners of the ships concerned and their cargoes. Maritime traffic would not come to a halt and the Canadian or United States economy would not be adversely affected. Moreover, neither country is in any way concerned with speedy transits in the open waters of the Lakes—if certain ships wish to proceed cautiously or at relatively slow speed, the rest of the maritime traffic will not be disturbed in the least. Since public interest is not involved, publicly organized pilotage—and, even less, compulsory pilotage—is not justified in the open waters of the Great Lakes any more than in the open waters of the St. Lawrence River east of Les Escoumins and in the Gulf of St. Lawrence (Part I, p. 479).

Pilotage requirements in the open waters of the Great Lakes were considered justified to promote the safety of navigation solely because certain Masters and officers of ocean vessels were unfamiliar with the Great Lakes rules and navigational practices, namely, special Rules of the Road, mandatory use of R/T, operators with a practical knowledge of the English language and separate shipping lanes for upbound and downbound traffic. However, the fact that some non-regular traders did not meet all these specifications was never considered a serious threat to the safety of navigation, as proved by the ease with which waivers have been granted (p. 144) and by the indirect manner in which the subject is covered in the legislation of Canada and the United States. Neither legislation prohibits ships' officers who are unfamiliar with these special rules and practices from navigating without the assistance of a person with such knowledge. The only requirement is that there be on board such a person whose assistance could be readily available if needed, i.e., the mere presence on board (not necessarily on the bridge) of a registered pilot or an officer of the ship holding a "B" certificate for the waters concerned (p. 118).

That the necessary familiarization could be easily acquired is clear from the ease with which "B" certificates may be obtained, i.e., two round trips in the waters concerned within the preceding two years and an examination on the Great Lakes Rules of the Road, radiotelephone procedure, proficiency in the English language and knowledge of the practice of following separate courses. Re the requirement for two round trips, it is not necessary that the officer participate in the actual navigation of his ship, or even be on the bridge at all (p. 140).

Variations in navigational rules and practices are common and ocean-going Masters and officers are used to encountering them, for such differences will be found wherever unusual navigational conditions prevail. The Great Lakes Rules of the Road were originally drawn up in circumstances that have changed radically as a result of the opening of the Great Lakes to ocean shipping in 1959. Many of these rules that conflict with the International Rules were not dictated by local peculiarities but merely reflect local practices which developed over the years when most of the ships trading on the Lakes were confined to them because of their size and, for the same reason, most ocean-going ships could not proceed above Montreal (Part IV, pp. 927-9). These Rules, which contain modifications of the International Rules of the Road, now lead to some confusion and may even be a source of potential danger, not only for the coastal and ocean-going vessels which enter the Great Lakes system, but also for the lake vessels themselves which now proceed in great numbers downriver to and below Montreal harbour where the International Rules as modified by the St. Lawrence River Collision

Regulations apply (Part IV, p. 177 and p. 655). The Commission is aware of the efforts made in Canada and the United States to modify the Great Lakes Rules with a view to bringing them more in line with the International Rules, retaining only what is absolutely necessary for the safety of navigation in the light of present conditions. The Commission supports these efforts as an elementary safety measure and has reason to believe that this important objective will be achieved in the near future.

Radiotelephone communication between ships for safety reasons is a mandatory practice in the Great Lakes system (pp. 108 and ff.). It has proven far superior to sound and visual signals. A common language is an essential prerequisite and it is because English was in general use on the Great Lakes that the system became possible. It has worked well and has great safety advantages.

Most Masters and officers of foreign ships now entering the system have a good working knowledge of English. To impose compulsory pilotage in the open waters of the Lakes, thereby necessitating a costly, involved service because a few of them are not conversant with it, is unjustifiable. Furthermore, the present regulations do not provide the solution since neither the pilot nor the "B" certificate-holder, as the case may be, has to be in charge of navigation in undesignated waters—in fact need not even be on the bridge—nor is the Master obliged to use his services as interpreter if the occasion arises. Some other means must be found to solve this problem, bearing in mind that, as a prerequisite to ships entering the Great Lakes system, it is the basic responsibility of shipowners to have aboard radiotelephone operators fluent both in English and in the language spoken by the Master and conversant with marine terms. One method might be for the shipowners to arrange, much as was done in the past with Sailing Masters, for the temporary hiring of such operators in sufficient numbers to assure a continuous watch, but they should not form part of the pilotage organization or be provided by it.

The use of separate shipping lanes is not a difficult requirement since they are clearly indicated on the charts. Ocean-going Masters and officers are conversant with the practice of using separate shipping lanes which has now been adopted in many parts of the world, so much so that it was made the subject of an international IMCO agreement (vide p. 114) and at the March 1971 meeting of the Maritime Safety Committee of IMCO it was unanimously agreed that two-way sea traffic rules should be made compulsory in all crowded areas throughout the world.

The requirement to have a pilot on board while crossing the open waters of the Great Lakes is very costly for ocean shipping, and a sizeable pilotage organization must be maintained to meet the demand thus artificially created.

The vast size of the Lakes and the long distances to their ports result in a regrettable waste of pilots' time, either waiting at outports or travelling back and forth between them and pilot stations, which must be reflected in pilotage charges. Compulsory pilotage has become a self defeating process in that it is driving clients away from the Great Lakes system (p. 98).

The present pilotage requirements in the undesignated waters of the Great Lakes represent a compromise solution reached in 1960 to break the deadlock in negotiations over urgently needed parallel pilotage legislation (pp. 53-63) but were considered essentially a temporary measure subject to modification in the light of experience (pp. 138-9). In the preamble to the 1968 Memorandum of Arrangements (Ex. 1400), the Canadian and U.S. Governments stated that "open waters" pilotage was one subject they had agreed to include in the overall revision of the pilotage system and its rate structure.

In the light of the foregoing, the Commission believes that compulsory pilotage in the undesignated waters of the Great Lakes should be abolished and publicly organized pilotage as it now exists there discontinued, on the grounds that shipping has no need for such a service and it is not warranted in the public interest.

RECOMMENDATION NO. 4

**Establishment of Port Pilotage Services in Great Lakes Ports
Situating outside Designated Pilotage Waters to Be Left to
Local Port Authorities; Such Services in Canadian Ports to
Be Classified Private Services**

Efficient and relatively inexpensive port pilotage service can be achieved only if locally organized. Since the aim is to improve local safety and efficiency, the organization and control of such services should be the responsibility of the port authority.

A pilot is by definition an expert in local navigation and his *expertise* is maintained and improved by constant intensive local experience. In addition to familiarity with physical features and the intricacies of navigation, he must be fully informed about local traffic (pp. 119-20).

The obvious reason why the organization of separate port pilotage services was not encouraged in the Great Lakes system is that under the existing legislation there is little need for it, since there should be on board all ships calling at its ports a qualified person sufficiently conversant with them to provide the necessary service, even if delays are incurred at times. However, experience has proved that non-regular traders who do not take a pilot

on board in the open waters of the Lakes because of the "B" certificate procedure have regularly taken advantage of port pilotage services wherever they exist (vide p. 121). The demand for port pilotage services will increase if more non-regular traders arrive at ports without a pilot on board, which will be the case if the number of "B" certificate-holders increases, or if, as recommended, the compulsory taking of a pilot in the open waters of the Lakes is abolished and the pilotage service officially organized there is discontinued.

Ports situated in designated waters (with the exception of those which were included more by accident than by necessity, e.g., Kingston, or because they serve merely as a boarding area, e.g., Port Colborne) are in quite a different category because, except for regular traders, they are the origin or destination of trips through restricted waters where pilotage is compulsory. Berthing or unberthing is an integral part of an assignment; this practice should be followed unless safety or efficiency would be enhanced by the creation of a separate port pilotage service and no unreasonable expense is involved. In Montreal, all the governing factors were considered and a compromise reached: the harbour pilots' activities were limited to movages within the harbour, with St. Lambert lock at the entrance to the Seaway being considered a harbour berth for this purpose (Part IV, p. 626). The Commission has recommended against a separate port pilotage service for Quebec—despite the fact it would in certain circumstances improve efficiency—because of the prohibitively high cost with the prevailing demand (Part IV, p. 1014). In the three Great Lakes Districts, this problem arises only in the intermediate ports of Detroit and Toledo; elsewhere, most traffic consists of full transits. The available statistics do not permit the Commission to pass judgment on the possibility or advisability of port pilotage in these two cities.

The main complaint by shipping was the lack of District pilot stations to service these ports by maintaining sufficient pilots to meet the demand so that ships would not have to detain a pilot in order to ensure service on departure (pp. 168 and 254–6). The result has been costly detention charges for ships and a serious waste of pilots' time. By establishing the Detroit change-point with its pool of pilots some relief was obtained and, at the same time, the situation at Toledo improved.

Accordingly, the Commission recommends that port pilotage services in Great Lakes ports situated outside designated waters should be organized by local port authorities at their discretion, that wherever such services are established at Canadian ports they be classified private services (Part I, Gen. Rec. 17, p. 509) and the port pilots involved who meet the basic qualifications be entitled to a Certificate of Approval from the duly designated Pilotage Authority (Part I, Gen. Rec. 13, p. 494).

RECOMMENDATION No. 5

The Principles of U.S. and Canadian Participation at All Levels of Pilotage Administration and Parity in the Number of Pilots to Be Abandoned

These principles, which result from the binationality of Great Lakes waters, are based on considerations foreign to pilotage organization as such. When they were adopted, they appeared to be the equitable solution in the circumstances but experience proved them unworkable because they interfered with the flexibility that should characterize a pilotage organization, and gradually they had to be abandoned (pp. 146-8).

The more realistic organization towards which the present system has evolved should be formally agreed upon and given full recognition in the legislation of both countries.

The organizational principles recommended are described in subsequent Recommendations.

To require parity in numbers between United States and Canadian pilots, whether overall or in each sector, is unrealistic and artificial. This principle was adopted with the aim of providing equal opportunities for the pilots of both countries but it proved a source of administrative problems and the aim was achieved only at the expense of efficiency. The number of pilots required in any area must be decided locally. Increases or decreases in strength should not be affected by the nationality of available candidates nor should any variation in national representation in one sector require compensation by rearrangement in other sectors.

The system was tried and found wanting (pp. 175-8). Overall parity was achieved briefly in 1964 but has since been abandoned for all practical purposes. Candidates of the required nationality were often not available to fill vacancies and these were often left unfilled for a considerable time, with adverse effects on the efficiency of the service.

RECOMMENDATION No. 6

The Principle of Two Distinct Canadian and United States Great Lakes Pilotage Administrations to Be Retained, but Their Respective Jurisdiction to Be Limited to Specific Zones of the Great Lakes System: the Area East of Lake Erie under Canadian Control and the Area West of Lake Erie under United States Control

The concept of an International Pilotage Commission seems the ideal solution in principle but, from the practical point of view, it is considered that

control of pilotage in the Great Lakes system can be achieved as effectively though a less complicated organization.

The system of separate national administrations has worked well and has proved sufficiently flexible. It has been possible to proceed gradually to a basic reorganization of the system through the simple process of decisions arrived at jointly by the two Central Authorities ratified at Government level by an exchange of diplomatic notes (Memorandum of Arrangements).

It is considered, however, that the rôle of the two Central Authorities should now be redefined in the respective legislation of each country. In addition to their function as coordinators of the overall organization of pilotage services throughout the Great Lakes system and their general responsibility to promote and protect the interest of the country they represent, *inter alia*, by assuring that adequate services are provided at reasonable cost, each Central Authority should have its jurisdictional control limited to a given territory which would become its exclusive responsibility and over which it would have exclusive administrative and operational control, i.e., the organization towards which the original system has gradually evolved.

Joint Canadian and United States participation at the administrative and operational levels was a solution arbitrarily imposed in the implementation of the original principle of equal participation. Significantly, this solution was never applied to District No. 3. It also required the joint agreement and absolute cooperation of the Canadian and U.S. local administrative authorities who shared the direction of the service in Districts 1 and 2 and their adjacent undesignated waters. This proved complicated, costly and a serious source of dispute among pilots. It has since been replaced by the more realistic concept of a single administrative operational authority for each sector of designated waters and the *de facto* division of the Great Lakes system into two separate spheres of control, the Canadian Central Authority becoming responsible for pilotage operations in the Great Lakes system east of Lake Erie and the U.S. Pilotage Administration west of Lake Erie.

These arrangements, which have developed on the basis of experience, should be recognized in parallel legislation which acknowledges that each country has the right to adopt in its respective zone of control the type of organization best suited to its legislative and institutional requirements, and provides all the necessary powers to achieve full and effective control over the provision of services, as if the zone were fully contained in its national territory, including full and exclusive powers to license pilots and determine their status, method of remuneration and working conditions.

RECOMMENDATION No. 7

The Pilotage Organization in the Great Lakes Zone under Canadian Control to Be Integrated with Pilotage Elsewhere in Canada and Operated on the Same Principles and Procedures

There is no valid reason why the zone of the Great Lakes system which it is proposed to make an exclusive Canadian responsibility should be treated for organizational purposes as a case of exception in Canadian legislation: it ought to be fully integrated with the national pilotage system.

In addition to avoiding unnecessary multiplication of Crown agencies, a unified Canadian pilotage organization would have the marked advantage of achieving a consistent policy as determined by the proposed Canadian Central Pilotage Authority (Part I, Gen. Rec. 16, p. 502). As the Canadian counterpart of the U.S. Great Lakes Pilotage Administrator, it would be in a position to implement their mutual decisions and ensure the necessary coordination both with the U.S. zone of the system and the other Canadian Pilotage Districts. Despite apparent differences from a purely legal point of view, this is actually the present situation. This function is now fully assumed by the Minister of Transport, officially for the Great Lakes system as the Canadian Pilotage Administrator, and for the St. Lawrence Pilotage Districts situated below the Great Lakes system as the Pilotage Authority for each of the three Districts of Cornwall, Montreal and Quebec. This concentration of power in the Canadian Central Authority is warranted to ensure the most efficient service in the St. Lawrence–Great Lakes waterway under Canadian jurisdiction.

The function of the Central Authority should remain as defined in Gen. Recs. 16 and following (Part I, pp. 502 and ff.), with the added responsibility in the Great Lakes system of acting in cooperation with the U.S. Great Lakes Pilotage Administration, but it should not become involved in administration at District level or the direction of the local pilotage service.

Each separate pilotage sector in the Canadian zone of the Great Lakes system should be made a Pilotage District in the Canadian meaning of the term, and each of those Districts whose services are classified as essential in the public interest should be under the full licensing, administrative and operational authority of its own Pilotage Authority (Part I, Gen. Recs., C.11, pp. 455 and ff.).

RECOMMENDATION No. 8

**The Two Designated Waters Sectors Contained in the Proposed
Great Lakes Zone under Canadian Control to Become
Separate Canadian Pilotage Districts**

The sector of the Seaway between Snell lock and Cape Vincent extending over the pilotage waters of both countries, which now forms Great Lakes District No. 1, and the Welland Canal, which now forms the eastern sector of District No. 2, should each become a Pilotage District, as defined in Canadian legislation, with its own Pilotage Authority.

District 1 is already organized as a separate District and its present limits should be maintained, subject to the necessary adjustment at the downstream end between Snell lock and St. Regis which, as recommended earlier, should form part of the Cornwall Pilotage District (Part IV, Rec. 3, p. 1009).

The Welland Canal has been, in fact, if not in law, a separate Pilotage District since 1969. The original organization for Great Lakes District 2 violated all the basic principles which should govern Pilotage Districts (p. 165) and experience proved it to be inadequate and less than efficient. Not only have the District 2 pilots been gradually restricted to in-District assignments, but since the 1969 reorganization they have been assigned to either one of the two sectors of the District, separated as they are by the open waters of Lake Erie. Each sector is now served by its group of pilots and administered by its own separate, independent administrative authority. It is considered that this factual situation should be given legal recognition by establishing the Welland Canal sector as a separate Pilotage District with its own Pilotage Authority and regulations.

RECOMMENDATION No. 9

**A Pilot Boarding Station to Be Established at the Western
End of Lake Erie**

A pilot boarding station at the western end of Lake Erie is essential to achieve full efficiency in the western sector of District No. 2.

This basic requirement has always been recognized but a number of factors have so far prevented its fulfilment, principally because the cost involved was not considered warranted in the light of the existing pilotage demand in the open waters of Lake Erie.

To organize and operate a boarding area in that sector is a relatively involved proposal since there is no port situated at the approach to the connecting channels leading to the Detroit River and ports at the west end of the Lake, and each possible site poses different financial problems.

Southeast Shoal has been referred to as the most suitable location since it is the only area at the western end of Lake Erie where all traffic has to pass close to shore, i.e., through the passage between Point Pelee and Pelee Island. Therefore, it is close to road communications and a pilot vessel operating from shore would not have to travel far to provide service. However, this is not the ideal site from the operational point of view since it is too far out in the open waters of the Lake. Pelee Passage does not present sufficiently unusual navigational difficulties to warrant the assistance of a pilot and the thirty-six-mile stretch between Pelee Passage and confined waters is uncomplicated open water navigation (p. 89). To establish a boarding area at that end is possible but is it economically justified? A floating boarding station could be established, a system which has been adopted in cases where the distance to the land was excessive, e.g., in the Quebec District, C.G.S. *Citadelle* was stationed near the boarding area to provide living quarters for the pilots (Part IV, p. 418). This system is also in use in New York harbour. An alternative would be to require vessels to detour somewhat closer to the northwest shore of Lake Erie where there is deep water and from where a shuttle pilot vessel service could be operated. The factors which determine the choice between such alternatives are the cost involved and the loss of pilots' time that could be avoided if the station were established west of Southeast Shoal.

If the Commission's Recommendation No. 3 for abolishing the pilotage requirement and discontinuing service in undesignated waters is implemented, it will be necessary to establish and operate such a boarding station. This will result in increased efficiency in both sectors of District No. 2 together with a reduced number of pilots.

RECOMMENDATION No. 10

All Pilots, Irrespective of Their Nationality, within a Group and Sharing the Same Workload to Be under the Complete Control of the Same Central and Local Authorities

A single line of direction over all the pilots in a group who share the same workload is essential to the efficiency of the pilotage service. This can be more easily achieved when all the pilots in the group hold the same nationality, as is now the case in both the Welland Canal, where all the pilots are Canadians, and in the western sector of District No. 2, where all the pilots except two are U.S. citizens (the two Canadian pilots not belonging to the United States group do not now share the same workload (vide pp. 256-7)).

Although the question of overall or local parity between Canadian and U.S. pilots should not be considered (Rec. 5), there is no basic objection if the pilots of both countries share in the provision of services in a given

sector, provided that, except for nationality, they are fully integrated into the group, i.e., come under the jurisdiction of the same central and local authorities for all purposes (including licensing and its related functions) and share the same status and method of remuneration (for further details, vide Rec. 11).

If there is to be binational participation in any sector, the number or ratio of pilots of each nationality should not be rigid but merely a tentative goal, the exigencies of the service permitting.

Licensing power and its associated functions of surveillance and reappraisal are essentially local and should be the prerogative of the local authority, the District Pilotage Authority in the Canadian organization (vide Part I, C. 11, Gen. Recs. 8, 12 and 26-36). The exercise of these powers by Canadian Pilotage Authorities should not be a bar to licensing pilots of U.S. nationality. The basic marine competency and experience, which are a prerequisite to licensing, appear from the candidates' records and, hence, except for verification purposes, do not come within the purview of the licensing process. For U.S. candidates, a Certificate of Competency issued by the proper U.S. authority is equivalent to the Certificate required from Canadian candidates and should be accepted as the prerequisite for a pilot's licence (or registration certificate if the term is to be retained) issued by the Canadian Pilotage Authority or to continue to hold his Canadian pilot's licence once issued. Such a licence would automatically lapse or be suspended if the U.S. Certificate of Competency was withdrawn or suspended by the U.S. Coast Guard or other appropriate U.S. authority. The licence of a Canadian pilot should be dealt with in the same manner if his Certificate of Competency issued by D.O.T. is withdrawn (Part I, Gen. Rec. 36, p. 578).

RECOMMENDATION No. 11

The Status and Method of Remuneration of All Pilots Sharing the Same Workload to Be Uniform

Disparity in status and method of remuneration of pilots within the same group and sharing the same workload is, as proved by experience, not conducive to good administration and is prejudicial to the efficiency of the service (Part I, p. 548). The adverse effects of such a situation were serious in District 2 which has the larger number of pilots with substantially the same representation from each nationality (vide p. 181). The ensuing difficulties were no doubt the main reason for the administrative division of the District into two sectors in 1969 with the pilots in each enjoying the same status and method of remuneration.

The problem still exists with the District 3 and Lake Huron/Lake Michigan groups, but it is not as acute because there are fewer pilots and a

smaller Canadian representation. Nevertheless, charges were made of discrimination against the Canadian pilots or, at least, differences in treatment (pp. 278–80).

Differences in the status and system of remuneration of pilots within the same group are bound to create disputes and administrative difficulties. Pilotage is sufficiently complex and testing without adding unnecessary complications—this situation should be corrected.

Where the Canadian pilots are salaried employees, U.S. pilots should not necessarily be barred from participating. As already recommended, pilots should not be employees of a Department of the Canadian Government but of their Pilotage Authority.

RECOMMENDATION No. 12

Billing and Collecting Pilotage Fees to Be in the Currency of the Nationality of the Pilotage Administration Controlling the Service, Regardless of the Nationality of the Pilots Concerned

Until recently, it made a substantial difference to vessels whether pilotage fees were in U.S. or Canadian currency (pp. 293–4) and the problem still remains, despite the fact that at the moment (July 1971) the exchange differential is small.

Two basic principles governing the establishment of rates are that the extent of pilotage charges for a given service should be fully ascertainable from the applicable tariff, and there should be only one applicable tariff for services rendered by a group of pilots. This is, in fact, the nature of the agreement that was reached between Canada and the United States prior to the enactment of their parallel Great Lakes pilotage legislation. The United States Great Lakes Pilotage Act requires the establishment of “joint or identical rates, charges, and any other conditions or terms for services by registered pilots”; the expression “registered pilots”, when used without qualification in the United States Act, refers to both United States and Canadian registered pilots.

This goal, however, was never achieved because the method adopted always took into account the rate of exchange differential. Agreements as to pilotage rates have been reached at Government level through the procedure of the Memorandum of Arrangements. The ensuing tariffs have been joint in that the rates are described in the same terms in both U.S. and Canadian regulations; these rates appear to be, at first view, identical in that the same amounts are quoted in both regulations but, in fact, there is a substantial difference in that the amounts payable to U.S. pilots are in U.S. dollars while those payable to Canadian pilots are in Canadian dollars.

At first, the problem was not taken too seriously because of the small differential in the rate of exchange. The 1961 Memorandum of Arrangements provided that the applicable currency was to be the currency of the administrative authority concerned. Hence, Canadian pilotage offices billed pilotage charges in Canadian dollars, irrespective of the nationality of the pilot, and the U.S. pools in U.S. dollars. Under this system, there was no injustice to shipping since there was no overlapping in the jurisdiction of the various pilotage offices, e.g., in District 1, all upbound traffic was billed in Canadian currency and all downbound traffic in U.S. currency. This arrangement was changed after the Canadian dollar was pegged in 1962 at 92½¢ U.S. because the rate differential was then substantial. No doubt the legal argument must have been raised to the effect that U.S. pilots were governed by U.S. legislation and, accordingly, the U.S. tariff should apply when billing ships for the value of U.S. pilots' services. In 1963, the Memorandum of Arrangements was modified to provide that henceforth billing would be in the currency of the nationality of the pilot who had rendered the service. This further complicated accounting procedures and the distribution of net earnings. The problem no longer exists in District 2 because all the pilots in each of the two groups have the same nationality, but remains in all other sectors of the Great Lakes system.

It is considered that a return should be made to the original arrangements, each local authority to bill in its own currency. The division of the Great Lakes system into Canadian and U.S. zones should be recognized and defined in legislation, and the regulation-making authority of each country should limit its rate-fixing function to the zone under its jurisdiction. The tariff enacted by the regulation-making authority of the other country for the zone under its jurisdiction would then be made applicable by a mere reference accompanied by the usual reciprocal clause.

RECOMMENDATION No. 13

In the Great Lakes Zone under Canadian Control, Direction of the Pilotage Service to Be the Sole Responsibility of the Pilotage Authority of Each District; the Equalization of Trips System Which Is Now Being Followed in District No. 1 to Be Abandoned; Assignments to Be Made According to a Regular Tour de Rôle Based on Availability for Duty with Due Regard for Safety of Navigation

A similar recommendation made in Part IV (Rec. No. 8, p. 1020) applies here equally *mutatis mutandis*.

RECOMMENDATION NO. 14

In the Great Lakes Zone under Canadian Control, in Any District Where the Pilots' Remuneration Is Not a Fixed Salary, the District Pilotage Authority to Institute and Operate Pooling of the Pilots' Earnings, and Arrange Sharing on the Basis of Availability for Duty without Regard to Nationality; Pilots' Corporation Expenses to Be Financed through Membership Dues Deducted at Source from Each Pilot's Share in the Pool

A similar recommendation made with respect to the St. Lawrence River pilots (Part IV, Rec. 9, p. 1024) applies here equally *mutatis mutandis*.

There should be a single pool for each group of pilots who share the same workload, even when both nationalities are involved, e.g., the Lake Ontario group (pp. 296, 301 and 322–3). However, the currency factor should be disregarded and shares calculated in the currency of the administrative authority concerned. These measures would guarantee an equal share for equal availability, irrespective of nationality.

Chapter E

APPENDICES

APPENDIX A

Statistical Report Great Lakes Pilotage 1968.

APPENDIX B

- (1) Shipping Casualties, Accidents and Incidents with a District No. 1 Pilot on Board:
 - (a) Table—Comparative statistical analysis during the years 1964–1969 inclusive.
 - (b) Summary—Detailed analysis for the year 1964.
- (2) Shipping Casualties, Accidents and Incidents with a Lake Ontario Pilot on Board:
 - (a) Table—Comparative statistical analysis during the years 1964–1969.
 - (b) Summary—Detailed analysis for the year 1967.
- (3) Shipping Casualties, Accidents and Incidents with a District No. 2 Pilot on Board:
 - (a) Table—Comparative statistical analysis during the years 1964–1969.
 - (b) Summary—Detailed analysis for the year 1965.
- (4) Shipping Casualties, Accidents and Incidents with a Lake Huron/Lake Michigan Pilot on Board:
 - (a) Table—Comparative statistical analysis during the years 1964–1969.
 - (b) Summary—Detailed analysis for the year 1966.
- (5) Shipping Casualties, Accidents and Incidents with a District No. 3 Pilot on Board:
 - (a) Table—Comparative statistical analysis during the years 1964–1969.
 - (b) Summary—Detailed analysis for the year 1966.

Appendix A

STATISTICAL REPORT GREAT LAKES PILOTAGE 1968

Prepared by
U.S. Department of Transportation
U.S. Coast Guard—Ninth Coast Guard District
and the
Department of Transport of Canada, Pilotage Division

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INTRODUCTION

This statistical report is prepared jointly by the Great Lakes Pilotage Staff, Ninth Coast Guard District, and the Pilotage Division of the Department of Transport of Canada.

The report provides statistics for the U.S. and Canadian pilots on the Great Lakes, registered and regulated pursuant to provisions of the Great Lakes Pilotage Act of 1960 and Chapter VI A of the Canada Shipping Act and includes all waters of Lakes Superior, Michigan, Huron, Erie and Ontario, their connecting and tributary waters, the St. Lawrence River as far east as St. Regis and adjacent port areas.

The report is presented in three parts: Pilot Registration, Pilotage Service, and Pilotage Receipts and Expenditures. The data is derived from primary personnel records, availability reports, pilotage source forms, annual audit reports and accounting records, both American and Canadian.

The year used is the calendar year, except as otherwise indicated. Data for prior years has been included, where available, to provide complete information illustrating the development of the service in the formulative period beginning May 1, 1961.

It will be noted that the number of pilots authorized and on the rolls have constantly increased since 1961, peaking in 1966-1967. However, the number of pilots in 1968 decreased for the first time, reflecting the continuing economic trend toward fewer vessels of greater tonnage.

PART I—REGISTRATION OF PILOTS
TABLE 1—NUMBER OF PILOTS AUTHORIZED
(By date of change)

Total	Total		District No. 1			District No. 2			District No. 3		
	U.S.	Canada	U.S.	Canada	Total	U.S.	Canada	Total	U.S.	Canada	Total
104	34	70	12	20	32	9	47	56	13	3	16
108	40	68	12	20	32	15	45	60	13	3	16
112	48	64	14	22	36	21	39	60	13	3	16
115	55	60	16	23	39	26	34	60	13	3	16
120	60	60	16	24	40	31	33	64	13	3	16
148	74	74	17	25	42	45	45	90	12	4	16
150	74	76	17	*27	44	45	45	90	12	4	16
156	78	78	*21	29	50	45	45	90	12	4	16
166	83	83	21	29	50	50	50	100	12	4	16
170	85	85	21	29	50	50	50	100	14	6	20
170	85	85	21	29	50	50	50	100	14	6	20
153	74	79	20	26	46	40	49	89	14	4	18

*Under date of 29 July 1965, two Canadian positions allocated for St. Regis/Snell Lock Pilotage; on 10 May 1966, the two compensating U.S. positions were allocated to District No. 1.

TABLE 2—NUMBER OF PILOTS ON ROLLS
(Including Applicants temporarily registered)

(Dec. 31st)	Total	Total		District No. 1		District No. 2		District No. 3	
		U.S.	Canada	U.S.	Canada	U.S.	Canada	U.S.	Canada
1961.....	105	41	64	12	20	15	44	14	—
1962.....	117	54	63	14	22	24	38	16	3
1963.....	118	58	60	15	23	29	34	14	3
1964.....	128	65	63	17	23	36	37	12	3
1965.....	143	70	73	17	25	40	45	13	3
1966.....	161	76	85	19	*29	43	50	14	6
1967.....	161	80	81	21	**28	45	49	14	4
1968.....	153	74	79	20	26	40	49	14	4

*Includes two positions allocated to Snell Lock/St. Regis.
** Does not include one pilot active for entire operating season who retired 21 Dec. 1967.

TABLE 3(a)—PILOTS ATTRITION
(Changes during calendar year)

Year	Total	Total		Retired		Resigned		Deceased		Registration Revoked		Other*	
		U.S.	Canada	U.S.	Canada	U.S.	Canada	U.S.	Canada	U.S.	Canada	U.S.	Canada
1961.....	5	4	1			2		1		1			
1962.....	14	6	8	1	5	3		1			1	2	1
1963.....	9	6	3	4	1			1		1		1	
1964.....	8	6	2	3	1		1	1		1		2	
1965.....	5	2	3	1	1	1		1					
1966.....	3	2	1	1		1							
1967.....	6	2	4	1	3			1				1	
1968.....	2	2		1		1							

*Includes registrations which expired without application for renewal and registrations not renewed upon application.

TABLE 3(b)—PROJECTED RATE OF RETIREMENT AT AGE 65

Year	Total	Total		District No. 1		District No. 2		District No. 3	
		U.S.	Canada	U.S.	Canada	U.S.	Canada	U.S.	Canada
1969.....	1		1						
1970.....	5	2	3	1		2			
1971.....	5	3	2	2		2		1	
1972.....	3	1	2	1		2			
1973, etc.....	139	68	71	19	23	36	44	13	4

TABLE 4(a)—AGE OF PILOTS AS OF DECEMBER 31st

Year	29-39		40-49		50-59		60-65		Over 65	
	U.S.	Canada	U.S.	Canada	U.S.	Canada	U.S.	Canada	U.S.	Canada
1964.....	6	11	26	20	38	27	1	3	2	2
1965.....	4	11	25	29	35	27	6	7		
1966.....	5	12	27	32	36	28	8	9		
1967.....	5	9	29	29	39	29	7	14		
1968.....	4	10	25	28	38	29	7	12		

TABLE 4(b)—AVERAGE AGES (DECEMBER 31st)

Year	Total	District No. 1		District No. 2		District No. 3	
		U.S.	Canada	U.S.	Canada	U.S.	Canada
1964.....	50.4	48.1	45.5	51.1	53.2	51.9	50.3
1965.....	49.4	47.8	45.4	50.5	50.6	51.8	47.7
1966.....	49.1	47.8	47.6	51.6	50.3	50.6	46.7
1967.....	50.4	47.1	47.1	51.6	50.1	51.6	47.8
1968.....	50.5	48.2	47.6	52.4	50.9	52.6	48.8

TABLE 5(a)—APPLICANT PILOTS APPOINTED

Year	Total	District No. 1		District No. 2		District No. 3	
		U.S.	Canada	U.S.	Canada	U.S.	Canada
1962.....	19	3	2	10		4	
1963.....	13	1	1	8		3	
1964.....	17	3	4	9		1	
1965.....	29	3	2	12	10	1	1
1966.....	26	4	2	4	11	2	3
1967.....	12	3		6	3		
1968.....	0						

TABLE 5(b)—ATTRITION OF APPLICANT PILOTS

Year	Total	Registered		Resigned		Cancelled		Other	
		U.S.	Canada	U.S.	Canada	U.S.	Canada	U.S.	Canada
1962.....	3	3							
1963.....	13	11		1				1	
1964.....	10	5	1	2					2
1965.....	19	7	8	3		1			
1966.....	17	7	5	1	1		1	2	
1967.....	17	7	4	1	1	3			1
1968.....	4			2		2			

TABLE 6(a)—AVAILABILITY OF PILOTS

1968	Total			District No. 1			District No. 2			District No. 3		
	Total	U.S.	Canada	Total	U.S.	Canada	Total	U.S.	Canada	Total	U.S.	Canada
Total pilot days.....	37,288	18,072	19,216	11,538	5,116	6,422	21,538	9,680	11,858	4,212	3,276	936
Days available.....	32,851	15,865	16,986	11,009	4,837	6,172	17,988	8,016	9,972	3,854	3,012	842
Days unavailable.....	4,437	2,207	2,230	529	279	250	3,550	1,664	1,886	358	264	94
% of availability.....	88.10	87.78	88.39	95.41	94.55	96.10	83.52	82.81	84.09	91.50	91.94	89.95
Days of season.....					247	247		242	242		234	234
Effective number of pilots.....	135.34	65.57	69.77	44.56	19.58	24.98	74.32	33.12	41.20	16.46	12.87	3.59

Effective number of pilots is derived by dividing total days pilots are available for service by number of days in season. In other words, an effective pilot is one who is available for service every day of the season.

TABLE 6(b)—PERCENT OF AVAILABILITY BY YEAR

Year	Total			District No. 1			District No. 2			District No. 3		
	Total	U.S.		Total	U.S.		Total	U.S.		Total	U.S.	
		U.S.	Canada		U.S.	Canada		U.S.	Canada		U.S.	Canada
1965.....	89.72	90.83	88.66	95.88	96.40	95.55	86.21	87.40	85.03	93.38	95.29	85.35
1966.....	89.35	90.67	88.54	95.94	96.75	95.37	85.09	86.48	83.92	94.32	95.22	91.08
1967.....	87.29	87.18	87.39	94.23	93.16	95.01	84.00	84.91	83.19	86.22	85.84	87.55
1968.....	88.10	87.78	88.39	95.41	94.55	96.10	83.52	82.81	84.09	91.50	91.94	89.95

TABLE 6(c)—EFFECTIVE NUMBER OF PILOTS BY YEAR

Year	Total			District No. 1			District No. 2			District No. 3		
	Total	U.S.		Total	U.S.		Total	U.S.		Total	U.S.	
		U.S.	Canada		U.S.	Canada		U.S.	Canada		U.S.	Canada
1965.....	129.03	64.19	64.84	39.01	15.13	23.88	75.03	*36.74	38.29	14.99	12.32	2.67
1966.....	134.96	65.62	69.34	43.27	17.90	25.37	76.26	35.51	40.75	15.43	12.21	3.22
1967.....	138.18	67.73	70.45	43.69	18.19	25.50	78.97	37.52	41.45	15.52	12.02	3.50
1968.....	135.34	65.57	69.77	44.56	19.58	24.98	74.32	33.12	41.20	16.46	12.87	3.59

*Includes Canadian pilots temporarily working under jurisdiction of the United States pool.

PART II—PILOTAGE SERVICE

TABLE 1—NUMBER OF ASSIGNMENTS

Year	Total	District No. 1	District No. 2	District No. 3
1961.....	9,033	3,406	3,728	1,899
1962.....	9,165	3,723	3,517	1,925
1963.....	9,845	3,616	*4,517	1,712
1964.....	12,929	4,566	6,186	2,177
1965.....	14,630	5,170	7,111	2,349
1966.....	14,118	5,261	6,582	2,275
1967.....	12,910	4,996	6,175	1,739
1968.....	13,791	4,903	6,818	2,070
Total.....	96,421	35,641	44,634	16,146

*Dispatch at Lock 7, Welland Canal, District 2, initiated in 1963, increased assignments per canal transit.

TABLE 2—PILOTAGE ASSIGNMENTS AND WORKLOAD

1968	Grand Total	District No. 1			District No. 2			District No. 3		
		U.S. pilots	Canada pilots	Total	U.S. pilots	Canada pilots	Total	U.S. pilots	Canada pilots	Total
Number of assignments.....	13,791	2,225	2,678	4,903	3,006	3,812	6,818	1,643	427	2,070
Workload:										
Designated water hours.....	88,687	11,893	15,983	27,876	22,835	34,064	56,899	3,264	648	3,912
Undesignated water hours.....	97,526	9,743	9,568	19,311	30,138	26,563	56,701	15,750	5,764	21,514
Detained hours.....	70,188	2,154	2,865	5,019	31,027	30,385	61,412	2,764	993	3,757
Total hours.....	256,401	23,790	28,416	52,206	84,000	91,012	175,012	21,778	7,405	29,183

FROM: Source Form tabulation.

NUMBER OF ASSIGNMENTS BY DISTRICT

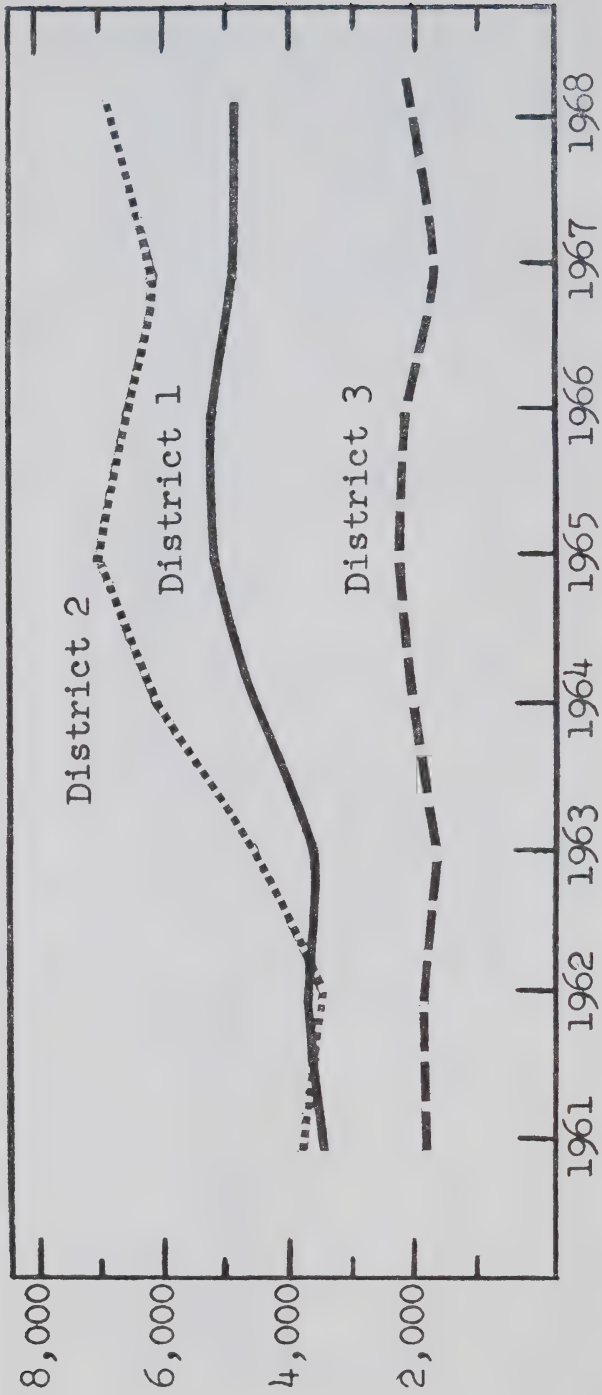


CHART I

TABLE 3—WORKLOAD PER EFFECTIVE PILOT
(From Part I, Table 6)

1968	Number of effective pilots	Hours on Assignment ¹	Hours per pilot	Days of Season	Hours per day
District No. 1:					
United States.....	19.58	23,790	1,215	247	4.92
Canada.....	24.98	28,416	1,137	247	4.60
Total.....	44.56	52,206	1,171	247	4.74
District No. 2:					
United States.....	33.12	84,000	2,536	242	10.48
Canada.....	41.20	91,012	2,209	242	9.13
Total.....	74.32	175,012	2,354	242	9.73
District No. 3:					
United States.....	12.87	21,778	1,692	234	7.23
Canada.....	3.59	7,405	1,988	234	8.49
Total.....	16.46	29,183	1,772	234	7.57
GRAND TOTAL.....	135.34	256,401	1,894	241	7.86

¹ Hours on assignment includes total time on ship in both designated and undesignated waters.

TABLE 4—AVERAGE HOURS PER ASSIGNMENT

	Number of Assignments		Number of hours		Average hours per assignment	
	1967	1968	1967	1968	1967	1968
District No. 1:						
United States.....	2,102	2,225	22,217	23,790	10.56	10.69
Canada.....	2,894	2,678	30,371	28,416	10.49	10.61
Total.....	4,996	4,903	52,588	52,206	10.52	10.64
District No. 2:						
United States.....	2,700	3,006	95,319	84,000	35.30	27.94
Canada.....	3,475	3,812	87,443	91,012	25.16	23.87
Total.....	6,175	6,818	182,762	175,012	29.59	25.66
District No. 3:						
United States.....	1,299	1,643	27,365	21,778	21.06	13.25
Canada.....	440	427	8,296	7,405	18.85	17.34
Total.....	1,739	2,070	35,661	29,183	20.50	14.09
GRAND TOTAL.....	12,910	13,791	271,011	256,401	20.99	18.59

TABLE 5—AVERAGE ASSIGNMENTS PER EFFECTIVE PILOT
(Part I, Table 6)

	Effective number of pilots		Number of Assignments		Average number of assignments per pilot	
	1967	1968	1967	1968	1967	1968
District No. 1:						
United States.....	18.19	19.58	2,102	2,225	115.55	113.63
Canada.....	25.50	24.98	2,894	2,678	113.49	107.20
Total.....	43.69	44.56	4,996	4,903	114.35	110.03
District No. 2:						
United States.....	37.52	33.12	2,700	3,006	71.96	90.76
Canada.....	41.45	41.20	3,475	3,812	83.83	92.52
Total.....	78.97	74.32	6,175	6,818	78.19	91.73
District No. 3:						
United States.....	12.02	12.87	1,299	1,643	108.06	127.66
Canada.....	3.50	3.59	440	427	125.71	118.94
Total.....	15.52	16.46	1,739	2,070	112.04	125.75
GRAND TOTAL.....	138.18	135.34	12,910	13,791	93.42	101.89

TABLE 6—NUMBER OF SEAWAY TRANSITS BY FOREIGN FLAG VESSELS
(Excluding United States and Canadian registered and enrolled vessels)

Year	Montreal-Lake Ontario Section		Welland Canal Section	
	Number of transits	Average GT per vessel	Number of transits	Average GT per vessel
1961.....	2,513	5,247	2,526	5,342
1962.....	2,548	5,593	2,607	5,774
1963.....	2,367	5,925	2,441	6,072
1964.....	2,711	6,232	3,129	6,442
1965.....	3,068	6,521	3,338	6,663
1966.....	2,775	6,899	2,748	7,115
1967.....	2,647	6,882	2,426	6,976
1968.....	2,456	7,567	2,382	7,696

From traffic reports of the St. Lawrence Seaway Authorities.

TABLE 7—RATIO OF DISPATCHES TO TRANSITS OF THE ST. LAWRENCE SEAWAY

Year	Total transits	Total dispatches	District No. 1		District No. 2		District No. 3		Total ratio
			Dispatches	Ratio	Dispatches	Ratio	Dispatches	Ratio	
1961.....	2,513	9,033	3,406	1.355	3,728	1.483	1,899	0.755	3.5945
1962.....	2,548	9,165	3,723	1.461	3,517	1.380	1,925	0.755	3.5969
1963*.....	2,367	9,845	3,616	1.527	4,517	1.908	1,712	0.723	4.1592
1964.....	2,711	12,929	4,566	1.684	6,186	2.281	2,177	0.803	4.7690
1965.....	3,068	14,630	5,170	1.685	7,111	2.317	2,349	0.765	4.7685
1966.....	2,775	14,118	5,261	1.896	6,582	2.372	2,275	0.820	5.0875
1967.....	2,647	12,910	4,996	1.887	6,175	2.333	1,739	0.657	4.8772
1968.....	2,456	13,791	4,903	1.996	6,818	2.776	2,070	0.843	5.6151

*Dispatch at Lock 7, Welland Canal, District 2, initiated in midsummer 1963, increased assignments per canal transit.

TRANSITS BY FOREIGN FLAG VESSELS—MONTREAL-LAKE ONTARIO SECTION

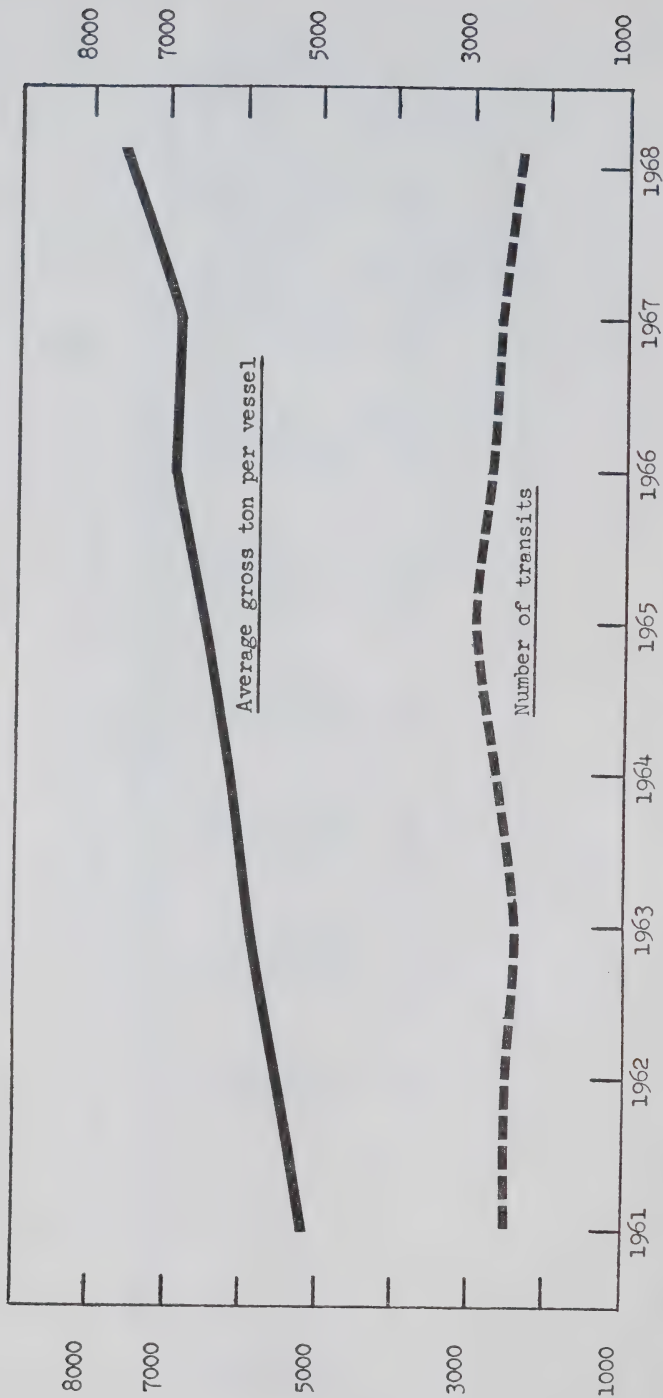


CHART 2

PART III—PILOTAGE RECEIPTS AND EXPENDITURES

TABLE 1—SUMMARY FOR 1968

(To nearest whole dollar or percent)

	Total (average)	District No. 1	District No. 2	District No. 3
Number of dispatches.....	13,791	4,903	6,818	2,070
Gross revenue per dispatch.....	\$ 246	\$ 188	\$ 293	\$ 224
Cost per dispatch.....	\$ 38	\$ 28	\$ 36	\$ 66
Net revenue per dispatch.....	\$ 208	\$ 160	\$ 257	\$ 158
Percent of cost to gross revenue.....	15	15	12	30
Average number of dispatches per effective pilot.....	102	110	92	126
Share of cost per effective pilot.....	\$ 3,850	\$ 3,076	\$ 3,318	\$ 8,352

TABLE 2—PILOTAGE RECEIPTS—1968 OPERATING SEASON

	Total	District No. 1		District No. 2		District No. 3	
		U.S. pilots	Canada pilots	U.S. pilots	Canada pilots	U.S. pilots	Canada pilots
Pilotage charges:							
In designated waters.....	\$2,410,705	\$295,274	\$403,530	\$655,741	\$ 884,616	\$143,757	\$27,787
In undesignated waters.....	909,970	88,939	95,536	280,095	202,694	187,416	55,290
Boat charges.....	71,742	17,415	17,597	9,266	6,723	15,474	5,267
Travel expenses.....	100,040	15,406	14,174	25,389	15,692	23,063	6,316
Total.....	\$3,492,457	\$417,034	\$530,837	\$970,491	\$1,109,725	\$369,710	\$94,660

From source form tabulation in both United States and Canadian currencies.

TABLE 3—PILOTAGE RECEIPTS AND EXPENDITURES BY NATIONALITY OF PILOT

	Total	District No. 1		District No. 2		District No. 3	
		U.S. pilots	Canada pilots	U.S. pilots	Canada pilots	U.S. pilots	Canada pilots
Pilotage revenue.....	\$3,196,872	\$383,829	\$461,758	\$936,133	\$1,007,068	\$330,875	\$77,209
Reimbursable subsistence and travel.....	100,761	13,225	12,468	24,796	15,261	29,441	5,570
Reimbursable boat charges.....	70,613	17,091	17,010	9,188	6,608	16,797	3,919
Reimbursable dispatching and accounting charges.....	17,719	8,894	8,825	—	—	—	—
Total revenue.....	\$3,385,965	\$423,039	\$500,061	\$970,117	\$1,028,937	\$377,113	\$86,698
Expenses.*							
Pilots subsistence and travel.....	111,213	13,225	12,429	27,935	17,924	32,189	7,511
Boat charges.....	183,432	32,550	36,552	33,075	33,930	38,371	8,954
Dispatching and accounting.....	141,451	12,520	15,850	44,128	48,444	16,629	3,880
Communications.....	25,094	2,531	3,204	6,544	6,637	5,009	1,169
Other.....	60,076	3,644	4,614	14,148	13,885	19,285	4,500
Total expenses.....	\$ 521,266	\$ 64,470	\$ 72,649	\$125,830	\$ 120,820	\$111,483	\$26,014
Net earnings.....	\$2,864,699	\$358,569	\$427,412	\$844,287	\$ 908,117	\$265,630	\$60,684

*Expenses include only those recognized in inter-association settlements.
From accounting records in United States dollars.

TABLE 4(a)—COST OF OPERATION PER ASSIGNMENT

	Total			District No. 1			District No. 2			District No. 3		
	1966	1967	1968	1966	1967	1968	1966	1967	1968	1966	1967	1968
Number of assignments.....	14,118	12,910	13,791	5,261	4,996	4,903	6,582	6,175	6,818	2,275	1,739	2,070
Pilot subsistence and travel.....	\$ 4.89	\$ 6.70	\$ 8.06	\$ 4.82	\$ 4.82	\$ 5.23	\$ 2.93	\$ 5.88	\$ 6.72	\$10.75	\$15.01	\$19.18
Boat charges.....	10.92	12.18	13.30	9.38	11.82	14.09	9.31	8.87	9.83	19.14	24.93	22.86
Dispatching and accounting.....	11.44	14.08	10.26	8.81	12.87	5.79	13.32	14.60	13.58	12.07	15.77	9.91
Communications.....	1.72	1.65	1.82	1.33	.97	1.17	1.59	1.93	1.93	2.96	2.61	2.98
Other.....	2.27	4.49	4.35	.98	.47	1.68	2.83	5.48	4.11	3.62	12.53	11.49
Total expense per assignment.....	\$ 31.24	\$39.10	\$37.79	\$25.32	\$30.95	\$27.96	\$29.98	\$36.76	\$36.17	\$48.54	\$70.85	\$66.42

TABLE 4(b)—TOTAL REVENUE AND EXPENSE PER ASSIGNMENT

	Total			District No. 1			District No. 2			District No. 3		
	1966	1967	1968	1966	1967	1968	1966	1967	1968	1966	1967	1968
Gross earnings.....	\$196.31	\$210.09	\$245.52	\$156.97	\$168.13	\$188.27	\$234.04	\$245.16	\$293.20	\$178.13	\$206.11	\$224.06
Expenses.....	31.24	39.10	37.79	25.32	30.95	27.96	29.98	36.76	36.17	48.54	70.85	66.42
Net earnings per assignment.....	\$165.07	\$170.99	\$207.73	\$131.65	\$137.18	\$160.31	\$204.06	\$208.40	\$257.03	\$129.59	\$135.26	\$157.64
Percent of expenses to revenue.....	15.91%	18.61%	15.39%	16.13%	18.40%	14.85%	12.81%	14.99%	12.34%	27.25%	34.37%	29.64%
In United States dollars.												

TABLE 5—SUMMARY OF COST PER ASSIGNMENT BY YEAR
(To nearest whole dollar)

	Total (average)	District No. 1	District No. 2	District No. 3
1961.....	\$33	\$23	\$38	\$41
1962.....	44	30	49	62
1963.....	34	30	29	53
1964.....	32	25	31	53
1965.....	28	22	27	46
1966.....	31	25	30	49
1967.....	39	31	37	71
1968.....	38	28	36	66
Yearly average.....	\$35	\$27	\$35	\$55

TABLE 6—NET EARNINGS PER EFFECTIVE PILOT
(Part I, Table 6)

	Number of pilots		Net earnings		Average earnings	
	1967	1968	1967	1968	1967	1968
District No. 1:						
United States.....	18.19	19.58	\$ 297,627	\$ 358,569	\$16,362	\$18,313
Canada.....	25.50	24.98	387,733	427,412	15,205	17,110
Total.....	43.69	44.56	685,360	785,981	15,686	17,638
District No. 2:						
United States.....	37.52	33.12	663,825	844,287	17,692	25,492
Canada.....	41.45	41.20	623,038	908,117	15,031	22,042
Total.....	78.97	74.32	1,286,863	1,752,404	16,295	23,579
District No. 3:						
United States.....	12.02	12.87	185,962	265,630	15,471	20,639
Canada.....	3.50	3.59	49,248	60,684	14,070	16,903
Total.....	15.52	16.46	235,210	326,314	15,155	19,824
GRAND TOTAL.....	138.18	135.34	\$2,207,433	\$2,864,699	\$15,975	\$21,166

Average earnings does not represent take-home pay as recognized expense, does not include all items of travel, insurance, taxes and individual expense.

TABLE 7—PILOTAGE RECEIPTS AND EXPENDITURES BY YEAR

(In U.S. dollars)

	Gross earnings	Expenses	Percent of gross	Net earnings
District No. 1:				
1961.....	\$585,807	\$ 78,295	13.36	\$507,512
1962.....	639,602	111,148	17.38	528,454
1963.....	596,271	109,609	18.38	486,662
1964.....	713,956	113,133	15.84	600,823
1965.....	794,052	115,449	14.54	678,603
1966.....	825,837	133,219	16.13	692,618
1967.....	839,998	154,638	18.40	685,360
1968.....	923,100	137,119	14.85	785,981
Yearly average.....	\$739,452	\$119,076	16.10	\$620,751
District No. 2:				
1961.....	\$ 911,594	\$142,113	15.59	\$ 769,481
1962.....	975,491	172,774	17.71	802,717
1963.....	1,061,301	131,525	12.37	929,776
1964.....	1,344,635	188,926	14.05	1,155,709
1965.....	1,576,227	189,659	12.03	1,386,568
1966.....	1,540,429	197,336	12.81	1,343,093
1967.....	1,513,861	226,998	14.99	1,286,863
1968.....	1,999,054	246,650	12.34	1,752,404
Yearly average.....	\$1,365,324	\$186,997	13.69	\$1,178,326
District No. 3:				
1961.....	\$237,970	\$ 77,716	32.66	\$160,254
1962.....	338,590	118,637	35.04	219,953
1963.....	322,859	90,981	28.17	231,878
1964.....	417,304	115,360	27.64	301,944

1965.....	423,552	107,116	25.29	316,436
1966.....	405,247	110,434	27.25	294,813
1967.....	358,433	123,223	34.37	235,210
1968.....	463,811	137,497	29.65	326,314
Yearly average.....	\$370,970	\$110,120	29.68	\$260,850
Yearly totals:				
1961.....	\$1,735,371	\$298,124	17.18	\$1,437,247
1962.....	1,953,683	402,559	20.61	1,551,124
1963.....	1,980,431	332,115	16.77	1,648,316
1964.....	2,475,895	417,419	16.86	2,058,476
1965.....	2,793,831	412,224	14.75	2,381,607
1966.....	2,771,513	440,989	15.91	2,330,524
1967.....	2,712,293	504,860	18.61	2,207,433
1968.....	3,385,965	521,266	15.39	2,864,699
Yearly average.....	\$2,476,122	\$416,194	16.80	\$2,059,928

Appendix B(1)(a)

COMPARATIVE STATISTICAL ANALYSIS OF SHIPPING CASUALTIES, ACCIDENTS
AND INCIDENTS WITH A DISTRICT NO. 1 PILOT ON BOARD DURING THE YEARS 1964-1969

	1964	1965	1966	1967	1968	1969
A. EVENTS WHILE NAVIGATING						
I. MAJOR CASUALTIES (with or without loss of life)—Strandings.....	2	0	0	0	0	0
II. MINOR CASUALTIES (without loss of life)						
(a) Minor strandings.....	1	1	1	0	0	0
(b) Minor damage to ship.....	0	0	0	0	1	0
	1	1	1	0	1	0
III. ACCIDENTS (other than shipping casualties).....	0	0	0	0	1	0
IV. INCIDENTS (without any damage whatsoever)—Touching bottom in channel.....	0	5	2	1	2	0
	0	5	2	1	1	0
	3	6	3	1	4	0
B. EVENTS WHILE BERTHING, UNBERTHING, AT ANCHORAGE OR LOCK						
I. MAJOR CASUALTIES (with or without loss of life).....	0	0	0	0	0	0
II. MINOR CASUALTIES (without loss of life)						
(a) Minor strandings.....	0	1	0	0	1	0
(b) Minor damage to ship						
(i) Striking pier or installation.....	0	0	0	0	1	0
(ii) Striking vessel berthing or unberthing.....	0	0	0	0	0	0
(iii) Striking vessel at anchorage, lock or bridge.....	0	0	0	0	0	0
(iv) Striking approach wall or fender.....	4	1	1	4	0	0
(v) Striking lock wall or lock fender.....	7	4	4	2	4	7
(vi) Striking lock gate or gate fender.....	0	0	0	0	0	1
(vii) Striking bridge.....	1	0	0	0	0	0
	12	6	5	6	6	8

Appendix B(1)(b)

SHIPPING CASUALTIES, ACCIDENTS AND INCIDENTS WITH
A DISTRICT NO. 1 PILOT ON BOARD DURING 1964

Nineteen sixty-four had the greatest number of events in the past six-year period, details as follows:

A. EVENTS WHILE NAVIGATING

I. MAJOR CASUALTIES (with or without loss of life)—*Major strandings*

1. June 21—*Stella Nova* grounded in U.S. Narrows at Alexandria Bay; caused by steering gear failure.
2. November 9—*Belgien* grounded at McNair Island; caused by fog and pilot's error.

II. MINOR CASUALTIES (without loss of life)—*Minor strandings*

1. June 11—*Venus* grounded in U.S. Narrows at Point Vivian; caused by steering gear failure.

III. ACCIDENTS (other than shipping casualties)

—Nil

IV. INCIDENTS (without any damage whatsoever)

—Nil

B. EVENTS WHILE BERTHING, UNBERTHING, AT ANCHORAGE OR LOCK

I. MAJOR CASUALTIES (with or without loss of life)

—Nil

II. MINOR CASUALTIES (without loss of life)—*Minor damage to ship*

(i) *Striking pier or installation*

—Nil

(ii) *Striking vessel berthing or unberthing*

—Nil

(iii) *Striking vessel at anchorage, lock or bridge*

—Nil

(iv) *Striking approach wall or fender*

1. August 13—*Waldemar Peter* struck tie-up wall at Eisenhower lock; caused by wind when manœuvring.
2. August 24—*Alheli* struck approach wall at Iroquois lock while entering upbound; caused by wind when manœuvring.
3. October 31—*Totem Star* struck the upper approach wall at Eisenhower lock; caused when vessel took a sheer while manœuvring.
4. November 16—*Bolivia Maru* struck the approach wall above St. Lambert lock; caused by wind when manœuvring.

(v) *Striking lock wall or lock fender*

1. May 27—*Manchester Trader* struck the side of Eisenhower lock; caused by wind while manœuvring.
2. June 4—*Orient Merchant* struck the north side of Eisenhower lock; caused by manœuvring trouble.
3. June 14—*De Soto County* struck lock fender leaving Iroquois lock upbound caused by Master's error when manœuvring.

4. June 27—*Delphin* struck wall in Iroquois lock; caused when moorings parted while manœuvring.
5. June 30—*New Kailing* struck Snell lock with propeller; caused when vessel took a sheer while manœuvring.
6. July 28—*Magister* struck wall in Eisenhower lock when entering while manœuvring.
7. October 12—*Tsukishima Maru* struck wall in Iroquois lock; caused by slow engine response while manœuvring.

(vi) *Striking lock gate or gate fender*
—Nil

(vii) *Striking bridge*

1. May 2—*Apollonia* struck bascule bridge entering Iroquois lock upbound; caused by wind while manœuvring; vessel sheered to starboard.

III. ACCIDENTS (without damage to ship)
—Nil

IV. INCIDENTS (without any damage whatsoever)

(a) *Striking pier, installation, lock or bridge*

1. April 23—*Crystal Diamond* struck approach wall at Eisenhower lock; caused by wind when manœuvring.
2. June 5—*Point Aconi* struck the south wall of Snell lock; caused by pilot's error when manœuvring.
3. October 23—*Ilse Schulte* struck Snell lock wall; caused when vessel took a sheer while manœuvring.

(b) *Striking vessel berthing or unberthing*
—Nil

(c) *Striking vessel at anchorage, lock or bridge*

1. July 26—*Torsholm* being second vessel in tandem lockage at Iroquois lock entering upbound collided with stern of *Madgeburg* in lock; caused by defective air-control valve on main engine of *Torsholm*, and to four mooring lines breaking in succession during placement on bollards.

(d) *Striking buoys*
—Nil

(e) *Other—strandings*

1. August 5—*Michael L.* grounded leaving berth at Massena; caused by current when manœuvring.
2. August 16—*Adrian* grounded leaving berth at Toronto when manœuvring.

SOURCE: Ex. 1467 (Nov. 17, 1970 revision).

Appendix B(2)(a)

COMPARATIVE STATISTICAL ANALYSIS OF SHIPPING CASUALTIES, ACCIDENTS AND INCIDENTS WITH A LAKE ONTARIO PILOT ON BOARD DURING THE YEARS 1964-1969

	1964	1965	1966	1967	1968	1969
A. EVENTS WHILE NAVIGATING						
I. MAJOR CASUALTIES (with or without loss of life).....	0	0	0	0	0	0
II. MINOR CASUALTIES (without loss of life)—Minor stranding.....	0	0	0	1	0	0
	0	0	0	1	0	0
	1	0	0	0	0	1
B. EVENTS WHILE BERTHING, UNBERTHING, AT ANCHORAGE OR LOCK						
I. MAJOR CASUALTIES (with or without loss of life)—Heavy damage to ship.....	0	0	0	0	0	0
II. MINOR CASUALTIES (without loss of life).....	1	1	1	3	3	1
(a) Minor strandings.....	1	1	1	1	0	0
(b) Minor damage to ship.....	3	0	0	0	0	0
(i) Striking pier or installation.....	0	0	0	0	0	0
(ii) Striking vessel berthing or unberthing.....	0	0	0	0	0	0
(iii) Striking vessel at anchorage, lock or bridge.....	0	0	0	0	0	0
(iv) Striking approach wall or fender.....	0	0	0	1	0	0
(v) Striking lock wall or lock fender.....	0	0	0	0	0	0
(vi) Striking lock gate or gate fender.....	0	0	0	0	0	0
(vii) Striking bridge.....	0	0	0	0	1	0
(viii) Other.....	4	2	1	5	4	1
III. ACCIDENTS (without damage to ship)—Damage to buoy.....	0	1	0	0	0	0
IV. INCIDENTS (without any damage whatsoever)						
(a) Striking pier, installation, lock or bridge.....	0	0	0	1	1	0
(b) Stranding.....	1	0	1	0	0	0
	6	3	3	6	5	2
GRAND TOTAL.....	6	3	3	7	5	2

SOURCE: Ex. 1467.

Appendix B(2)(b)

SHIPPING CASUALTIES, ACCIDENTS AND INCIDENTS WITH A LAKE ONTARIO PILOT ON BOARD DURING 1967

Nineteen sixty-seven had the greatest number of events in the past six-year period, details as follows:

A. EVENTS WHILE NAVIGATING

I. MAJOR CASUALTIES (with or without loss of life)

—Nil

II. MINOR CASUALTIES (without loss of life)—*Minor strandings*

1. November 20—*Aigle d'Ocean* grounded in Lake Ontario; caused by error of navigation.

III. ACCIDENTS (other than shipping casualties)

—Nil

IV. INCIDENTS (without any damage whatsoever)

—Nil

B. EVENTS WHILE BERTHING, UNBERTHING, AT ANCHORAGE OR LOCK

I. MAJOR CASUALTIES (with or without loss of life)

—Nil

II. MINOR CASUALTIES (without loss of life)

(a) *Minor strandings*

—Nil

(b) *Minor damage to ship*

(i) *Striking pier or installation*

1. July 27—*Arna* struck corner of wharf while berthing in Toronto harbour; caused by pilot's error.
2. September 22—*Texas Maru* struck wharf in Toronto harbour; caused by engine failure.
3. November 29—*Pilo Blanco (Pico Blanco)* struck wharf in Toronto harbour; caused when anchor would not drop as required due to ice.

(ii) *Striking vessel berthing or unberthing*

1. October 31—*Texas Maru* collided with *Seattle Maru* in Toronto harbour while manœuvring.

(iii) *Striking vessel at anchorage, lock or bridge*

—Nil

(iv) *Striking approach wall or fender*

—Nil

(v)_m *Striking lock wall or lock fender*

1. June 7—*Belevlyn* downbound struck wall while leaving lock I in Welland Canal; caused by propeller wash of vessel ahead in lock (Ex. 1541(ee)).

III. ACCIDENTS (without damage to ship)

—Nil

IV. INCIDENTS (without any damage whatsoever)—*Striking pier*

1. April 12—*Widan* touched pier with her stern while backing out in Toronto harbour; caused by stern overlapping.

Appendix B(3)(a)

COMPARATIVE STATISTICAL ANALYSIS OF SHIPPING CASUALTIES, ACCIDENTS AND INCIDENTS
WITH A DISTRICT NO. 2 PILOT ON BOARD DURING THE YEARS 1964-1969

	1964	1965	1966	1967	1968	1969
A. EVENTS WHILE NAVIGATING						
I. MAJOR CASUALTIES (with or without loss of life)						
(a) Loss of life or abandonment of ship.....	0	1	1	0	0	1
(b) Major strandings.....	1	1	0	0	0	0
(c) Heavy damage to ship (other than above).....	1	0	0	0	1	0
II. MINOR CASUALTIES (without loss of life)	2	2	1	0	1	1
(a) Minor strandings.....	5	6	2	3	5	1
(b) Minor damage to ship.....	8	8	10	8	4	2
III. ACCIDENTS (other than shipping casualties).....	13	14	12	11	9	3
IV. INCIDENTS (without any damage whatsoever)	0	0	0	0	0	0
(a) Touching bottom or bank in channel.....	5	11	8	9	8	5
(b) Other.....	0	5	0	1	1	3
	5	16	8	10	9	8
	20	32	21	21	19	12
B. EVENTS WHILE BERTHING, UNBERTHING, AT ANCHORAGE OR LOCK						
I. MAJOR CASUALTIES (with or without loss of life)						
(a) Major strandings.....	1	0	0	0	0	0
(b) Heavy damage to ship.....	0	1	0	1	0	0
II. MINOR CASUALTIES (without loss of life)	1	1	0	1	0	0
(a) Minor strandings.....	1	0	0	0	0	0

(b) Minor damage to ship									
(i) Striking pier or installation.....	0	2	4	7	5	1	1	27	
(ii) Striking vessel berthing or unberthing.....	2	1	3	1	0	0	0		1
(iii) Striking vessel at anchorage, lock or bridge.....	5	0	2	0	2	2	5		0
(iv) Striking approach wall or fender.....	7	3	1	3	3	4			4
(v) Striking lock wall or lock fender.....	8	11	10	11	17	13			13
(vi) Striking lock gate or gate fender.....	1	1	1	1	3	0			0
(vii) Striking bridge.....	3	1	2	5	3	1			1
(viii) Other.....	1	4	0	2	0	3			3
	28	23	23	30	33				
III. ACCIDENTS (without damage to ship)									
(a) Damage to pier or installation.....	2	1	1	3	2	0			0
(b) Damage to buoys.....	0	1	0	0	0	0			0
(c) Damage to lock									
(i) Striking approach wall or fender.....	0	0	0	1	0	0			0
(ii) Striking lock wall or lock fender.....	2	0	2	0	3	1			1
(iii) Striking lock gate or gate fender.....	0	0	0	0	0	1			1
(d) Damage to bridge.....	1	2	2	1	2	1			1
	5	4	5	5	7				3
IV. INCIDENTS (without any damage whatsoever)									
(a) Striking pier, installation, lock or bridge.....	2	11	11	5	1	1			1
(b) Striking vessel berthing or unberthing.....	0	1	1	0	1	0			0
(c) Striking vessel at anchorage, lock or bridge.....	1	1	1	1	2	0			0
(d) Striking buoys.....	0	0	1	0	0	0			0
(e) Other.....	0	0	0	2	2	4			4
	3	13	14	8	6				5
	37	41	42	44	46				35
GRAND TOTAL.....	57	73	63	65	65	47			

SOURCE: Ex. 1467.

Appendix B(3)(b)

SHIPPING CASUALTIES, ACCIDENTS AND INCIDENTS WITH
A DISTRICT NO. 2 PILOT ON BOARD DURING 1965

Nineteen sixty-five had the greatest number of events in the past six-year period, details as follows:

A. EVENTS WHILE NAVIGATING

I. MAJOR CASUALTIES (with or without loss of life)

(a) *Loss of life or abandonment of ship*

1. May 23—*Patignies* collided with a yacht in the Detroit River resulting in the *loss of two lives*; caused by navigational error on the part of the pleasure craft.

(b) *Major stranding*

1. April 27—*Orient Merchant* grounded off Port Colborne; caused by fog.

II. MINOR CASUALTIES (without loss of life)

(a) *Minor strandings*

1. April 21—*Reinhart-Lorenz Russ* grounded in Lake St. Clair; caused by fog.
2. April 25—*Kini* grounded in St. Clair River; caused by navigational error of judgement.
3. July 1—*Holtheim* grounded at Sarnia; caused by wheelsman's error.
4. July 2—*Stolt Avenir* struck river bank in St. Clair River; caused by steering gear failure.
5. November 8—*Emma Johanna* struck bank of Welland Canal; caused by dense fog.
6. November 23—*Holsworthy Beacon* grounded in Lake Ontario; caused by pilot's error.

(b) *Minor damage to ship*

1. April 26—*Eretria* struck *Blanche Hindman* in Welland Canal while manœuvring.
2. May 19—*Stolt Bjorn* struck *Constance Bowater* in Welland Canal while manœuvring.
3. May 23—*Carl Trautwein* struck *Senator of Canada* in Welland Canal while manœuvring.
4. June 11—*African Lightning* struck *Senator of Canada* in Welland Canal while manœuvring.
5. August 27—*Vent Kimolos* collided with *Chee Lee* in Welland Canal; caused by wrong engine movement.
6. September 17—*Manchester Renown* and *Red Wing* collided in Welland Canal; caused by pilot's error.
7. November 3—*Argo* and *Mercury* collided in Welland Canal; caused by suction.
8. November 27—*Alison* lost both anchors off Port Colborne; caused by gale force wind and light ship.

III. ACCIDENTS (other than shipping casualties)

—Nil

IV. INCIDENTS (without any damage whatsoever)

(a) *Touching bottom or bank in channel*

1. May 29—*Lake Eyre* touched bank in Welland Canal; caused by wind.
2. July 25—*Dageid* touched bottom in Livingstone Channel; cause unknown.
3. August 22—*Beaverelm* struck canal bank in Welland Canal; caused by bank suction.
4. September 4—*Mesologi* struck bank in Welland Canal; caused by bank suction.
5. September 6—*Melusine* touched bottom in Livingstone Channel; cause unknown.
6. September 17—*Beaverfir* touched bank in Welland Canal; caused by bank suction.
7. October 7—*Pointe Noire* grounded in Lake St. Clair; caused by bottom suction.
8. October 31—*Argo* touched bottom in St. Clair River; caused by low water level.
9. November 11—*Alison* struck bank of Welland Canal; caused by helm being put the wrong way.
10. November 12—*Montreal City* grounded at South East Shoal; caused by Master's error.
11. November 27—*Ramon de Larrinaga* grounded in St. Marys River; caused by steering gear failure.

(b) *Other*

1. May 19—*Patignies* struck by downbound ship in Welland Canal; caused by restricted room.
2. August 4—*South America* collided with *T.R. McLagan* in Welland Canal; caused by pilot's error.
3. August 15—*Clarita Schroeder* collided with *Silver Isle* in Welland Canal; caused by bank suction.
4. September 23—*Aramis* collided with *Cape Breton Miner* above bridge 11 in Welland Canal; caused by suction.
5. November 11—*Visund* struck by passing ship in Welland Canal; caused by excessive speed.

B. EVENTS WHILE BERTHING, UNBERTHING, AT ANCHORAGE OR LOCK

I. MAJOR CASUALTIES (with or without loss of life)—*Heavy damage to ship*

1. August 27—*Eva Jeanette* collided with tug *Vegco* in Welland Canal lock 4; caused by wrong engine movement; tug sank.

II. MINOR CASUALTIES (without loss of life)

(a) *Minor strandings*

—Nil

(b) *Minor damage to ship*

(i) *Striking pier or installation*

1. August 13—*Tronstad* struck Penny dock at Ashtabula, Ohio; caused by high wind.
2. October 9—*Asama Maru* struck Government dock at Sarnia; caused by pilot's error.

- (ii) *Striking vessel berthing or unberthing*
 - 1. May 10—*Granffors* struck *Ruth Hindman* alongside at lock 7 in Welland Canal while manoeuvring.
- (iii) *Striking vessel at anchorage, lock or bridge*
 - Nil
- (iv) *Striking approach wall or fender*
 - 1. April 18—*Susanne Fritzen* struck entrance to lock 8, north end, in Welland Canal; caused by ice.
 - 2. June 11—*Faro* struck approach wall in Welland Canal while manoeuvring.
 - 3. June 16—*Cissoula* struck west approach wall of lock 1 in Welland Canal; caused by avoiding another ship during high wind.
- (v) *Striking lock wall or lock fender*
 - 1. April 16—*Vikara* struck Welland Canal lock wall while manoeuvring.
 - 2. May 10—*Union Transport* struck Welland Canal lock wall; caused by pilot's error.
 - 3. May 15—*Bel Mare* struck Welland Canal wall while manoeuvring.
 - 4. July 20—*La Marea* struck Welland Canal wall while manoeuvring.
 - 5. August 7—*Amenity* struck Welland Canal wall; caused when vessel took a sheer.
 - 6. September 15—*Orneffjell* struck Port Weller lock wall; caused by wind.
 - 7. October 25—*Polegate* struck Welland Canal wall; caused by wind.
 - 8. October 26—*Henriette Wilhelmine Schulte* struck Welland Canal lock wall while manoeuvring.
 - 9. November 11—*Orient Lakes* struck Welland Canal lock wall while being raised in lock.
 - 10. November 11—*Alison* struck Welland Canal lock wall while manoeuvring.
 - 11. November 25—*Texaco Mississippi* struck Welland Canal wall; caused by pilot's orders being countermanded and Master taking over.
- (vi) *Striking lock gate or gate fender*
 - 1. July 14—*Triada* struck Welland Canal guard gate wall while manoeuvring.
- (vii) *Striking bridge*
 - 1. May 27—*Marianna* struck bridge abutment in Welland Canal; caused by suction of passing ship.
- (viii) *Other*
 - 1. April 28—*Expeditior* struck tie-up wall above lock 6, west side in Welland Canal while manoeuvring.
 - 2. May 25—*African Lightning* struck wall in Welland Canal; caused by wind and avoiding collision.
 - 3. September 23—*Prins Alexander* lost anchor at Sarnia; caused by anchoring in strong current.

4. November 25—*Luka Botic* struck wall at bridge 21; caused by wheel being put the wrong way.

III. ACCIDENTS (without damage to ship)

(a) *Damage to pier or installation*

1. November 3—*Manchester Regiment* struck pier at Sarnia; caused by pilot's error.

(b) *Damage to buoys*

1. June 27—*Degero* struck mooring dolphin in Welland Canal while manoeuvring.

(c) *Damage to lock*

—Nil

(d) *Damage to bridge*

1. June 1—*Middlesex Trader* struck bridge at Welland Canal lock 2 while manoeuvring.
2. November 7—*Surrey Trader* struck Bridge 3 in Welland Canal while manoeuvring.

IV. INCIDENTS (without any damage whatsoever)

(a) *Striking pier, installation, lock or bridge*

1. April 12—*Leadale* struck Welland Canal Bridge 15 abutment; caused by wind.
2. July 21—*Sunvalley* struck Thorold pier; caused by wrong engine movement.
3. July 23—*Zenobia Martini* struck Welland Canal lock wall; caused when vessel took a sheer.
4. August 1—*Kini* struck Welland Canal lock wall; caused when vessel took a sheer.
5. August 4—*Susanne Fritzen* touched bridge abutment in Welland Canal; caused by blinding car lights.
6. August 31—*Santa Elizabetta* struck Welland Canal lock wall; caused when vessel took a sheer.
7. September 8—*Protostatis* struck Welland Canal lock fender; caused by steering difficulties.
8. October 2—*Seven Suns* struck bridge in Welland Canal; caused by high wind.
9. October 16—*Salvada* scraped pier at Cleveland, Ohio, while manoeuvring.
10. October 18—*Glaisdale* struck the wall in No. 3 lock of the Welland Canal while manoeuvring.
11. November 11—*Jawaga* struck the guard gate at lock 7 of the Welland Canal; caused by Master's error.

(b) *Striking vessel berthing or unberthing*

1. August 1—*Mary Nubel* touched *Margit Brovig* at wharf in Port Weller; caused by current.

(c) *Striking vessel at anchorage, lock or bridge*

1. November 17—*Beaverroak* struck stern of tied-up ship in Port Weller harbour; caused by high wind while mooring.

Appendix B(4)(a)

COMPARATIVE STATISTICAL ANALYSIS OF SHIPPING CASUALTIES, ACCIDENTS AND INCIDENTS
WITH A LAKE HURON/LAKE MICHIGAN PILOT ON BOARD DURING THE YEARS 1964-1969

	1964	1965	1966	1967	1968	1969
A. EVENTS WHILE NAVIGATING						
I. MAJOR CASUALTIES (with or without loss of life).....	0	0	0	0	0	0
II. MINOR CASUALTIES (without loss of life)—Minor damage to ship.....	0	0	1	0	1	0
III. ACCIDENTS (other than shipping casualties).....	0	0	0	0	0	0
IV. INCIDENTS (without any damage whatsoever)—Touching bottom in channel.....	0	1	0	0	0	0
	0	1	1	0	1	0
B. EVENTS WHILE BERTHING, UNBERTHING, AT ANCHORAGE OR LOCK						
I. MAJOR CASUALTIES (with or without loss of life).....	0	0	0	0	0	0
II. MINOR CASUALTIES (without loss of life)						
(a) Minor strandings.....	0	0	0	0	0	0
(b) Minor damage to ship						
(i) Striking pier or installation.....	0	0	1	1	0	2
(ii) Striking vessel berthing or unberthing.....	0	0	0	0	0	0
(iii) Striking vessel at anchorage, lock or bridge.....	0	0	0	0	0	0
(iv) Striking approach wall or fender.....	0	0	0	0	0	0
(v) Striking lock wall or lock fender.....	0	0	1	0	0	0
(vi) Striking lock gate or gate fender.....	0	0	1	0	0	0
(vii) Striking bridge.....	0	1	1	0	1	0
(viii) Other—striking breakwater.....	1	0	0	0	0	0
	1	1	4	1	1	2
III. ACCIDENTS (without damage to ship).....	0	0	0	0	0	0
IV. INCIDENTS (without any damage whatsoever)—Striking pier, installation or lock						
	1	2	4	1	1	2
GRAND TOTAL.....	1	3	5	1	2	2

SOURCE: Ex. 1467.

Appendix B(4)(b)

SHIPPING CASUALTIES, ACCIDENTS AND INCIDENTS WITH A LAKE HURON/LAKE MICHIGAN PILOT ON BOARD DURING 1966

Nineteen sixty-six had the greatest number of events in the past six-year period, details as follows:

A. EVENTS WHILE NAVIGATING

I. MAJOR CASUALTIES (with or without loss of life)

—Nil

II. MINOR CASUALTIES (without loss of life)—*Minor damage to ship*

1. December 3—*Cedar* collided with *Irving S. Olds* in Welland Canal; caused by fog.

III. ACCIDENTS (other than shipping casualties)

—Nil

IV. INCIDENTS (without any damage whatsoever)

—Nil

B. EVENTS WHILE BERTHING, UNBERTHING, AT ANCHORAGE OR LOCK

I. MAJOR CASUALTIES (with or without loss of life)

—Nil

II. MINOR CASUALTIES (without loss of life)

(a) *Minor strandings*

—Nil

(b) *Minor damage to ship*

(i) *Striking pier or installation*

1. July 22—*Texas Maru* struck crane at Milwaukee while manoeuvring.

(ii) *Striking vessel berthing or unberthing*

—Nil

(iii) *Striking vessel at anchorage, lock or bridge*

—Nil

(iv) *Striking approach wall or fender*

—Nil

(v) *Striking lock wall or lock fender*

1. November 20—*Vasilios R.* struck wall in locks 2 and 3 of Welland Canal; caused when vessel took a sheer.

(vi) *Striking lock gate or gate fender*

1. November 3—*Transquebec* struck guard gate wall in Welland Canal; caused by high wind.

(vii) *Striking bridge*

1. August 27—*Mar Ligure* struck bridge while under tow in Calumet River; caused by tow line parting.

III. ACCIDENTS (without damage to ship)

—Nil

IV. INCIDENTS (without any damage whatsoever)

—Nil

SOURCE: Ex. 1467 (Jan. 21, 1970 revision).

Appendix B(5)(a)

COMPARATIVE STATISTICAL ANALYSIS OF SHIPPING CASUALTIES, ACCIDENTS AND INCIDENTS
WITH A DISTRICT NO. 3 PILOT ON BOARD DURING THE YEARS 1964-1969

	1964	1965	1966	1967	1968	1969
A. EVENTS WHILE NAVIGATING						
I. MAJOR CASUALTIES (with or without loss of life)—Major stranding.....	0	0	1	0	0	0
II. MINOR CASUALTIES (without loss of life)—Minor stranding.....	1	0	0	0	0	0
III. ACCIDENTS (other than shipping casualties).....	0	0	0	0	0	0
IV. INCIDENTS (without any damage whatsoever)—Touching bottom in channel.....	1	0	0	0	0	0
	2	0	1	0	0	0
B. EVENTS WHILE BERTHING, UNBERTHING, AT ANCHORAGE OR LOCK						
I. MAJOR CASUALTIES (with or without loss of life).....	0	0	0	0	0	0
II. MINOR CASUALTIES (without loss of life)—Striking pier, installation or lock.....	0	2	5	1	1	0
III. ACCIDENTS (without damage to ship).....	0	0	0	0	0	0
IV. INCIDENTS (without any damage whatsoever)—Striking vessel berthing or un-berthing.....	0	0	0	1	0	0
	0	2	5	2	1	0
GRAND TOTAL.....	2	2	6	2	1	0

SOURCE: Ex. 1467.

Appendix B(5)(b)

SHIPPING CASUALTIES, ACCIDENTS AND INCIDENTS WITH A DISTRICT NO. 3 PILOT ON BOARD DURING 1966

Nineteen sixty-six had the greatest number of events in the past six-year period, details as follows:

A. EVENTS WHILE NAVIGATING

I. MAJOR CASUALTIES (with or without loss of life)—*Major stranding*

1. November 19—*Nordmeer* grounded in Thunder Bay; caused by navigational error.

II. MINOR CASUALTIES (without loss of life)

—Nil

III. ACCIDENTS (other than shipping casualties)

—Nil

IV. INCIDENTS (without any damage whatsoever)

—Nil

B. EVENTS WHILE BERTHING, UNBERTHING, AT ANCHORAGE OR LOCK

I. MAJOR CASUALTIES (with or without loss of life)

—Nil

II. MINOR CASUALTIES (without loss of life)

(a) *Minor stranding*

—Nil

(b) *Minor damage to ship—Striking pier or installation*

1. April 14—*Silvaplana* struck wharf at Richardson's elevator in Port Arthur; caused by ice.
2. April 26—*Photinia* struck wharf at United Grain Growers' elevator in Port Arthur; caused when Master took over.
3. May 24—*Trefusis* struck over-hanging crane at Fort William; caused by wind.
4. September 23—*Delos Glory* struck pier in Duluth, Minn.; caused by light ship and high wind.
5. October 7—*Maxi Porr* struck wharf at Garvie's elevator in Calumet Harbor, Ill.; caused by tug error.

III. ACCIDENTS (without damage to ship)

—Nil

IV. INCIDENTS (without any damage whatsoever)

—Nil

SOURCE: Ex. 1467 (Nov. 26, 1970 revision).

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